


1982

Bulletin of the University of Nebraska: Annual Catalog of the College of Medicine, 1982-1983

University of Nebraska Medical Center

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University
of Nebraska
Medical Center

college of medicine bulletin



ACADEMIC CALENDAR 1982-1983

SEMESTERS

First Semester
Second Semester
May Term

August 23, 1982 — December 17, 1982
January 3, 1983 — May 1, 1983
May 2, 1983 — May 29, 1983

CLERKSHIP PERIODS

1A July
1B August
2A September
2B October
3A November
3B December
4A January
4B February
5A March
5B April
6A May (seniors)
6A May
6B June

July 6, 1982 — August 1, 1982
August 2, 1982 - August 29, 1982
August 30, 1982 — September 26, 1982
September 27, 1982 — October 24, 1982
October 25, 1982 — November 21, 1982
November 22, 1982 — December 17, 1982
January 3, 1983 — January 30, 1983
January 31, 1983 — February 27, 1983
February 28, 1983 — March 27, 1983
April 4, 1983 — May 1, 1983
May 2, 1983 — May 20, 1983
May 2, 1983 — May 29, 1983
May 31, 1983 — June 26, 1983

RECESSES AND HOLIDAYS

Independence Day
Labor Day
Thanksgiving (preclinical)
Thanksgiving (clinical)
Winter Recess
Spring Recess (preclinical)
Spring Recess (clinical)
Memorial Day
Summer Recess (clinical)

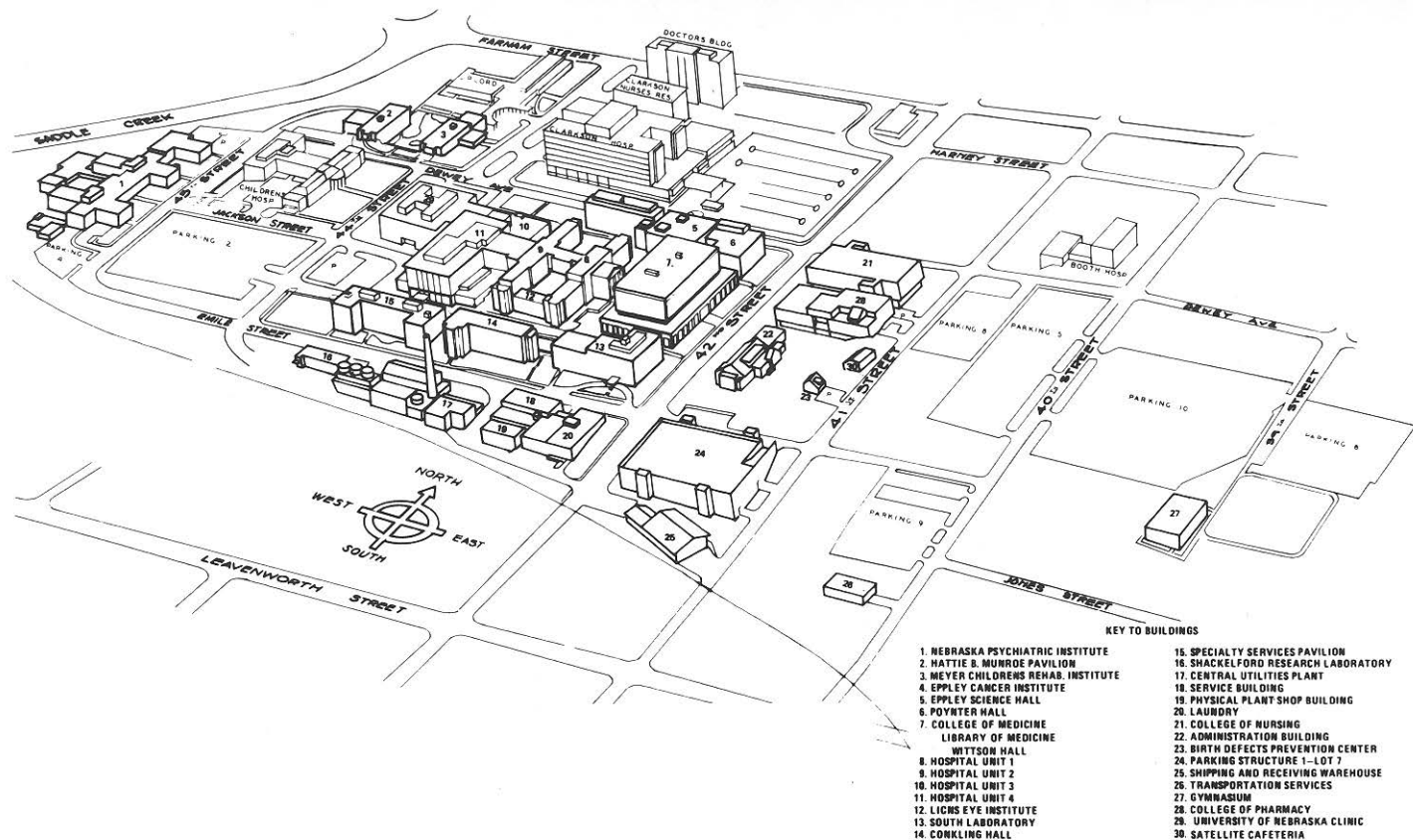
July 4, 5, 1982
September 6, 1982
November 25-28, 1982
November 25, 1982
December 18, 1982 — January 2, 1983
March 20, 1983 — March 27, 1983
March 28, 1983 — April 3, 1983
May 30, 1983
June 27, 1983 — July 4, 1983

SPECIAL EVENTS

Freshman Orientation
Oktoberfest
National Boards, Part I
National Boards, Part II
Health Professions Day
Commencement

August 20, 1982
October 10, 1982
June 14, 15, 1983
April 6, 7, 1983
TBA
May 22, 1983

The University of Nebraska Medical Center





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To Present and Future Physicians

These are times of great change in our society, of new demands being placed on the universities which have caused them to look at themselves critically and to plan for change to meet their new responsibilities.

Health is the most prized of all human possessions. Without it, the ability to enjoy other aspects of life is dimmed or destroyed. Those who enter the health professions have a responsibility to do all within their power to restore their fellow man to good health and a useful role in society. This commitment must often be accomplished at great cost to the professional person in time and energy. Health care must be rendered without regard to personal likes or dislikes.

The responsibility of the University of Nebraska College of Medicine is to assist in the provision of health care for Nebraska through the education of health professionals.

There is a growing national concern about the need for well-prepared men and women in the health professions and especially in medicine, and the University of Nebraska is dedicated to this. Candidates of moral integrity and willingness to work, who are well-suited for post-collegiate academic work, can apply for admission to the College of Medicine. Reasonable academic competence is necessary and high motivation is of even greater importance.

The purpose of the College of Medicine is to provide an organized high quality program of health education, service and research addressed to the needs of the citizens of the State of Nebraska.

The goals of the College of Medicine are as follows:

1. To provide high quality education in humanistic and scientific medicine for those students who aspire to the health professions in Nebraska, specifically medical students, house officers, allied health professions students, graduate college students, and continuing education students;
2. To encourage the recruitment and retention of qualified health professionals in the State of Nebraska;
3. To develop and maintain a sharing of educational resources with communities and health professionals in the State of Nebraska;
4. To provide high quality primary care programs for the citizens of the State of Nebraska consistent with educational programmatic needs and in concert with other health institutions, agencies and professionals;
5. To provide high quality tertiary care programs relevant to education and research and responsive to the needs of the citizens of the State of Nebraska, consistent with responsible regional and state health planning;
6. To develop and foster both clinical and basic health science research in the pursuit of scientific excellence and human needs;
7. To seek and develop resources that will enable the College of Medicine to respond to current and future educational, service and research needs and opportunities;

8. To provide appropriate financial, professional and intellectual rewards to remain competitive in order to attract and retain highly qualified faculty and staff;
9. To participate in the formulation of health policy at local, state, regional, and national levels in support of high quality health care for the citizens of the State of Nebraska.

I hope you find the bulletin of interest. Feel free to call or write this office for any additional information.

Alastair M. Connell, M.D.
Dean



GOVERNANCE OF THE UNIVERSITY OF NEBRASKA

The Board of Regents

Term Expires

Kermit Hansen, Omaha	January, 1985
Robert R. Koefoot, M.D., Grand Island	January, 1983
James H. Moylan, Omaha, Chairman	January, 1983
John W. Payne, Kearney	January, 1987
Robert Prokop, M.D., Ph.D., Wilber	January, 1983
Edward Schwartzkopf, Lincoln	January, 1985
Robert G. Simmons, Jr., Scottsbluff	January, 1987
Kermit Wagner, Schuyler	January, 1983
Florene Langford, UNO	January, 1983
Daniel Wedekind, UNL	April, 1983
Charles Mulry, UNMC	January, 1983
William F. Swanson, Lincoln, Corporation Secretary	

University of Nebraska Administration

Ronald W. Roskens, Ph.D., President

Howard W. Ottoson, Ph.D., Acting Executive Vice President for
Academic Affairs and Provost

Alan Seagren, Ed.D., Executive Vice President for Administration

William F. Swanson, B.S., Vice President for Governmental Relations

University of Nebraska Medical Center Administration

James V. Griesen, Ph.D., Interim Chancellor

Brent R. Stevenson, Vice Chancellor for Business and Finance

Alastair M. Connell, M.D., Dean, College of Medicine

Albert R. Haskell, Ph.D., Dean, College of Pharmacy

Rosalee C. Yeaworth, Ph.D., Dean, College of Nursing

William O. Berndt, Ph.D., Dean, Graduate Studies and Research

Merrill T. Eaton, M.D., Director, Nebraska Psychiatric Institute

Dale L. Duncan, M.A., Interim Director, Meyer Children's Rehabilitation
Institute

Norman H. Cromwell, Ph.D., Interim Director, Eugene C. Eppley Institute

Robert J. Baker, M.B.A., Director, University Hospital and Clinic

Delmer Lee, B.S., Assistant Vice Chancellor, Business and Finance

Richard L. Moore, Ph.D., Assistant Vice Chancellor for Student Services
and Director, Continuing Education

John E. Aronson, M.A., Director, Special Programs

Robert D. Bartee, Executive Assistant to the Chancellor

Reba Benschoter, Ph.D., Director, Biomedical Communications

Robert M. Braude, M.L.S., Director, Library of Medicine

Helen B. Coon, B.A., Registrar

Robert Fredlund, B.A., Director, Financial Aids

Anece McCloud, B.S., Director, Minority Student Affairs

COLLEGE OF MEDICINE

Alastair M. Connell, M.D., Dean, College of Medicine
Robert T. Binhammer, Ph.D., Associate Dean, Academic Affairs
John J. Matoole, M.D., Associate Dean, Veterans' Affairs
Frederick F. Paustian, M.D. Associate Dean, Graduate and Continuing
Medical Education
William R. Ruegamer, Ph.D., Associate Dean, Allied Health
Leon Davis, D.D.S., M.D., Associate Dean, Clinical Affairs
Irene Klintberg, Ph.D., Associate Dean, Administration
Robert S. Wigton, M.D., Assistant Dean, Graduate Medical Education

Department Chairmen

Anatomy

William K. Metcalf, M.D.

Anesthesiology

(Actg.) Jerry D. Edelman, M.D.

Biochemistry

William R. Ruegamer, Ph.D.

Family Practice

Robert Bass, M.D.

Internal Medicine

Michael F. Sorrell, M.D.

Medical Jurisprudence and Humanities

Walter Friedlander, M.D.

Medical Microbiology

Harry W. McFadden, Jr., M.D.

Neurology

Donald R. Bennett, M.D.

Neurosurgery

F. Miles Skultety, M.D., Ph.D.

Obstetrics and Gynecology

Joseph Scott, M.D.

Ophthalmology

Raymond E. Records, M.D.

Orthopaedic Surgery and Rehabilitation

John Connolly, M.D.

Otolaryngology

Anthony J. Yonkers, M.D.

Pathology and Laboratory Medicine

David T. Putilo, M.D.

Pediatrics

Carol R. Angle, M.D.

Pharmacology

Michael S. Ebadi, Ph.D.

Physiology and Biophysics

Joseph P. Gilmore, Ph.D.

Preventive and Stress Medicine

Robert Eliot, M.D.

Psychiatry

Merrill T. Eaton, M.D.

Radiology

Thomas J. Imray, M.D.

Surgery

Paul E. Hodgson, M.D.

Urology

Francis F. Bartone, M.D.

Emeriti Faculty

- Paul M. Bancroft, B.S., M.D., M.D.,
Clinical Associate Professor of Pediatrics, Emeritus
- Arthur Lawrence Bennett, A.B., Ph.D., M.D.,
Professor of Physiology and Biophysics, Emeritus
- H. H. Brinkman, B.S., M.S.,
Clinical Assistant in Surgery, Emeritus
- Horace K. Giffen, B.A., M.D.,
Assistant Professor of Pathology, Emeritus
- Harold Gifford, Jr., B.S., M.D.,
Professor of Ophthalmology, Emeritus
- Julius C. Goldner, B.S., M.D.,
Assistant Professor of Psychiatry, Emeritus
- Williamina H. Himwich, B.S., M.S., Ph.D.,
Research Professor of Psychiatry and Biochemistry, Emeritus
- Arthur Letcher Irons, D.D.S.,
Associate in Surgery, Emeritus
- J. Hewitt Judd, B.S., M.D.,
Professor of Ophthalmology, Emeritus
- Esley Joseph Kirk, A.B., M.D.,
Associate Professor of Internal Medicine, Emeritus
- John Stephens Latta, A.B., Ph.D.,
Professor of Anatomy, Emeritus
- George Edwin Robertson, B.S., M.D.,
Professor of Pediatrics, Emeritus
- Lynn W. Thompson, B.S., M.D.,
Assistant Professor of Anesthesiology, Emeritus
- Robert S. Wigton, B.S., M.A., M.D.,
Professor of Psychiatry and Neurology, Emeritus
- Violet Wilder, A.B., M.A., Ph.D.,
Associate Professor of Biochemistry, Emeritus
- Cecil Legriel Wittson, B.S., M.D.,
Chancellor of the Medical Center, Emeritus
Professor of Psychiatry, Emeritus
- George A. Young, Jr., M.D.,
Associate in Psychiatry and Neurology

THE UNIVERSITY OF NEBRASKA

The University of Nebraska is composed of three major subdivisions; the University of Nebraska-Lincoln (UNL), the University of Nebraska at Omaha (UNO), and the University of Nebraska Medical Center (UNMC). Each of the three major subdivisions is led by a Chancellor who reports to a University-wide President. Each is ultimately governed by an eleven-member Board of Regents who insure that the University meets its ultimate goals of quality instruction, research, and public service for the citizens of the state.

The College of Medicine actively seeks to fulfill the goals of the University by providing an educational program for undergraduate medical students leading to the award of the M.D. degree; conducting training programs for residents and fellows in the clinical sciences (Graduate Medical Education); and offering a wide variety of educational opportunities for physicians in practice (Continuing Medical Education). As one of the ten major units of UNMC, it shares the patient care, research, and community service programs of the Medical Center.

THE UNIVERSITY OF NEBRASKA MEDICAL CENTER

In recent years, this modern medical center has evolved as a major health facility for the State of Nebraska and surrounding areas. The Center includes the College of Medicine, College of Nursing, College of Pharmacy, the Graduate College, Nebraska Psychiatric Institute, the C. Louis Meyer Children's Rehabilitation Institute, the Eppley Institute for Research in Cancer and Allied Diseases, and University Hospital and Clinics. A School of Allied Health functions within the College of Medicine.

COLLEGE OF MEDICINE

Undergraduate Medical Education

The College of Medicine operates a fully accredited program leading to the Doctor of Medicine degree. The College also offers students who have completed the first two years in medicine without having previously received a Bachelor's degree the opportunity to receive a degree of Bachelor of Science in Medicine.

Graduate Medical Education

Medical education is a continuing process that begins in medical school and continues through the professional life of the physician. There are many possible career choices in medicine. Graduating seniors from UNMC participate in the National Resident Matching Program to obtain first year residency positions throughout the United States.

Residency programs in the College of Medicine are available in Anesthesiology, Child Psychiatry, Dermatology, Family Practice, Internal Medicine, Neurology, Obstetrics and Gynecology, Ophthalmology, Oral Surgery, Orthopaedic Surgery, Otolaryngology, Pathology, Pediatrics, Pedodontics, Psychiatry, Radiology, Surgery, and Urology. There are 65 first year and over 255 total positions. These programs are integrated with affiliated community hospitals to provide a broad experience in graduate education.

Continuing Medical Education

Continuing education is offered through a variety of approaches to practicing physicians, nurses, and people in allied health professions. Approximately fifty on-campus courses are offered each year by the University of Nebraska Medical Center. Located within the Eppley Science Hall, the Center is uniquely designed to facilitate adult learning. Medical students are welcome to attend most scheduled programs. Continuing education is also brought to health workers in their own hospitals through circuit courses and a program of two-way amplified telephone conferences involving the University of Nebraska Medical Center faculty and out-state participating hospitals.

School of Allied Health Professions

The School of Allied Health Professions within the College of Medicine offers the following baccalaureate, associate degree, post-baccalaureate certificate, and clinical practicum programs:

Audiology and Speech Pathology.....	Clinical Practicum
Biomedical Communications Education.....	
	Post-baccalaureate certificate
Medical Nutrition Education.....	Post-baccalaureate certificate
Medical Technology.....	Bachelor of Science
Nuclear Medicine Technology.....	Associate of Science
Nuclear Medicine Technology.....	Bachelor of Science
Nurse Anesthetist Education.....	Bachelor of Science
Physical Therapy Education.....	Bachelor of Science
Physician Assistant Education.....	Bachelor of Science
Radiologic Technology.....	Associate of Science
Radiologic Technology.....	Bachelor of Science

Graduate degrees offered by the Graduate School at the Medical Center include Master of Science in Pathology for medical technologists and the post-baccalaureate certificate in Biomedical Communications.

Bulletins may be obtained upon request.

GRADUATE COLLEGE

The Graduate College of the University of Nebraska is a system-wide educational organization with programs administratively located on each of the three major campuses of the University of Nebraska, namely UN-Lincoln, UN at Omaha, and UN Medical Center, Omaha. Those programs which are administratively housed on the Medical Center Campus are as follows:

Four departments of the College of Medicine (Anatomy, Biochemistry, Medical Microbiology, and Physiology and Biophysics) offer independent majors leading to the degrees of Master of Science or Doctor of Philosophy. The Department of Pathology offers an independent major leading to the degree of Master of Science. In addition, 14 departments of the College of Medicine (Anatomy, Anesthesiology, Biochemistry, Internal Medicine, Medical Microbiology, Obstetrics and Gynecology, Otolaryngology - Head and Neck Surgery, Pathology, Pediatrics, Pharmacology, Physiology and Biophysics, Psychiatry, Radiology, and Surgery); and three departments in the College of Pharmacy cooperate in

offering a Medical Sciences Interdepartmental Area Program which permits the student to engage in a course of study for the Master of Science degree or the Doctor of Philosophy degree with concentration in the area rather than a specific department.

For information about the entrance requirements and the course study available, please consult the Graduate Studies Bulletin.

GENERAL INFORMATION

History

The Legislative Act of February 15, 1869, provided for the formation of the University of Nebraska including a college of medicine. In 1883 the University of Nebraska College of Medicine was established at Lincoln. It continued in operation until the 1887 session of the legislature withdrew its appropriation, necessitating discontinuance of the college on May 19, 1887. The Omaha Medical College, incorporated at Omaha in 1881, became a part of the University of Nebraska in 1902. However, the first class entered in the fall of 1880; therefore, the College of Medicine celebrated its centennial in the 80-81 academic year. The merger resulted in the first two years of the four-year medical course being given in Lincoln and the last two years in Omaha. Since 1913 the entire educational program has been given in Omaha. The College of Medicine is a component of the University of Nebraska Medical Center, one of the three major campuses of the University of Nebraska System.

Standing

A strong faculty is meeting the demands of the expanding requirements of medical education. Excellent clinical facilities are provided through the University Hospital and Clinics as well as other affiliated hospitals.

The College of Medicine meets the requirements of the most exacting state examining and licensing boards. It is a member of the Association of American Medical Colleges and is accredited by the Liaison Committee on Medical Education representing the American Medical Association and the Association of American Medical Colleges.

The College of Medicine operates a fully accredited program leading to the Doctor of Medicine degree. The University Hospital and Clinic also provides residency programs in most of the major medical specialties.

Recently, several new programs have been undertaken with the objectives of providing better health services for the citizens of the state: developing interdisciplinary educational programs at both undergraduate and graduate levels; increasing allied health professions enrollments; improving graduate training opportunities for physicians; increasing the emphasis on ambulatory care; expanding continuing education programs for physicians, nurses, and allied health professionals; organizing circuit courses and two-way telephone conferences for physicians, nurses, and hospital administrators in rural areas; establishing a Rural Health Task Force to work toward the goal of improving health care in rural areas.

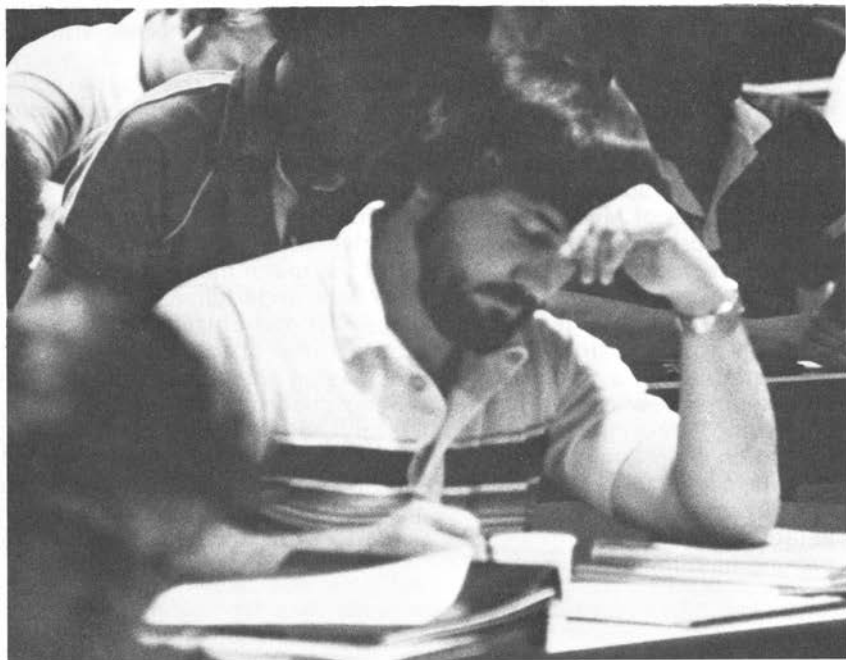
Educational Goals

The goal of the College of Medicine is to develop the knowledge and skills and foster attitudes appropriate for all doctors of medicine. The College aims to provide a sound basis for support of career choices in medical practice, teaching, research, or administration by stimulating students to obtain a background of basic information, a command of the language of biomedical science, a mastery of the skills necessary for clinical problem solving, a habit of self-education, and a sympathetic understanding of the behavior of healthy and sick people. The College is particularly oriented toward training physicians to meet all the health care needs of the citizens of Nebraska.

The course of study in the College of Medicine is designed to produce an unspecialized physician soundly grounded in modern science, who, after a variable period of postgraduate education and training, is competent to enter the field of medicine. Practicing physicians, medical investigators and medical teachers are products of the same educational process. All three are essential in the field of medicine. The practicing physician and the medical teacher must be capable both of practicing an art and of applying the natural sciences to medicine. Most medical investigators also have some responsibility in the teaching or practice of medicine. Thus, Doctors of Medicine deal with people as individuals and/or as a society.

An awareness of one's personal limitations is as important a characteristic as any other. Students of medicine are encouraged to seek experiences which will develop self insight.

A combined M.D.-Ph.D. program for a limited group of enrollees has been established. For further information consult with the Associate Dean for Academic Affairs.



LEARNING FACILITIES

Clinical Facilities

University Hospital and Clinic — The University Hospital and Clinic is the central and largest unit of the group of buildings comprising the Medical Center. University Hospital has 320 beds and 46 bassinets. The Medical Center also contains 95 beds at the Nebraska Psychiatric Institute.

University Hospital and Clinic operates extensive outpatient services in the University Clinic building and in the north wing of the University Hospital. Among the sixty clinics are Internal Medicine, Surgery, Pediatrics, Obstetrics and Gynecology, and all of their subspecialty services. In addition, the Departments of Ophthalmology, Otolaryngology, Orthopaedic Surgery and Rehabilitation, Neurology, Urology, and Family Practice operate outpatient clinics. A modern emergency department is also a part of the complete outpatient services available at University Hospital. Psychiatric clinics are operated by the University Hospital and the Nebraska Psychiatric Institute.

The C. Louis Meyer Children's Rehabilitation Institute, also located on the Medical Center Campus on 44th Street, provides specialized diagnostic and rehabilitative services for the handicapped child. University Hospital operates the Family Health Center and an outreach clinic in South Omaha.

Affiliated Hospitals

To further emphasize the College of Medicine's concern for improving health care in rural areas, a number of affiliation agreements between the Board of Regents and community hospitals distributed over the state are in effect. In Omaha, an affiliation exists with the the Omaha Veterans Administration Hospital which is fully integrated into the programs of the College of Medicine including two-way, closed-circuit television connections. Six private hospitals also are affiliated: The Children's Memorial Hospital, the Bishop Clarkson Memorial Hospital on campus, the Immanuel Hospital, the Nebraska Methodist Hospital, Salvation Army Booth Hospital, and Lutheran General Hospital. Finally, pilot educational programs underway in affiliated community hospitals located in rural Nebraska are worthy of particular mention. The College of Medicine is indebted to the volunteer faculty in these community hospitals for their contributions to the College's teaching efforts.

Library of Medicine

The Leon S. McGoogan Library of Medicine in the University of Nebraska Medical Center is one of the country's major health sciences resource libraries. It is housed in a 64,800 net-square-foot edifice situated above Wittson Hall, a location designed to reflect the concept of the library as a catalyzing agent for all activities on the campus. The collection numbers about 180,000 volumes, with a current journal titles list of about 3,300. Multi-media materials for self-instruction in curricular fields are also collected and made available in the Learning Resources Center. The library seats 450 readers in a variety of individual and group seating arrangements.

Reference services are offered the clientele of the Library of Medicine, including over 100 on-line computer-based bibliographic services such as MEDLINE (MEDLARS on-line) and CA SEARCH (Chemical Abstracts on-line). Bibliographic instruction and interlibrary borrowing are also available. The library is a link in a national network designed to facilitate biomedical information transfer, having been named by the National Library of Medicine as the management headquarters for the seven-state Midcontinental Regional Medical Library Program. This offers unlimited opportunity for the pursuit of research and study.

In addition to its regular functions, the library maintains a rare book collection and houses the Orr Collection of the American College of Surgeons. It also collects special materials on the history of medicine in Nebraska. Incorporated within the Library of Medicine are 2,000 volumes of the Omaha Douglas County Medical Society, periodic transactions of the Nebraska State Medical Association, and several outstanding medical libraries of former practitioners of the state.

Laboratory Facilities

Anatomy - The Department of Anatomy is located in the lower two levels of Wittson Hall. Facilities include well-equipped teaching and research laboratories, a modern audio-visual room with a wide variety of auto-instructional materials, and a small electron microscope suite.

Biochemistry - The Biochemistry Department is located on levels three and four of the South Building. Both levels house the departmental offices, research laboratories, and special supporting facilities such as instrument room, cold and constant temperature rooms, and storage areas.

Medical Microbiology - This department occupies space on the second, third, and fourth levels of Wittson Hall and shares student laboratory facilities with the Departments of Anatomy and Pathology. The diagnostic microbiology laboratory, located in the University of Nebraska Hospital and Clinics, provides material useful in class teaching exercises.

Pathology - The offices and classroom areas are located on the first and second floors of Wittson Hall. The student laboratories are also utilized by Microbiology and Anatomy. Approximately 9,000 colored lantern slides and numerous electron photomicrographs are used for the teaching exercises. Audio-visual aids are available to the student both as 35mm. pulsed tape programs and as microfiche. All instructional materials may be used on equipment maintained by the Department. The laboratories of the Department of Pathology in the University Hospital provide additional materials and case findings which support the teaching program.

Physiology & Biophysics - The department occupies the fifth, sixth, and seventh levels of the South Laboratory Building. The department library has extensive audio-visual programs. Research laboratories for staff and graduate students and supporting facilities are available on the fifth and sixth levels.

Pharmacology - The fourth, fifth and sixth floors of Poynter Hall (the oldest building in the Medical Center, constructed in 1913) have been completely remodeled for the use of the Department of Pharmacology. In addition to ample laboratory space, the renovated space also contains a

seminar hall, an auditorium with television recording equipment and a large reading room with audio-visual facilities for use by medical students, graduate students and residents. In addition, a drug and poison information center with microfilm and computer facilities will be housed in the reading room.

Museum - The pathological museum of the College of Medicine in Wittson Hall contains about 3,500 specimens. Nearly every variety of pathological lesion is represented and the constant addition of fresh material from the autopsies performed continually adds to its interest. In addition to the gross specimens are thousands of microscopic sections and a large collection of wax reproductions of various lesions. The museum is an important and necessary adjunct to the teaching of pathology and of clinical medicine.

ADMISSIONS

Educational Requirements

Adequate grounding in both the humanities and the sciences is sought in prospective students of medicine. Familiarity with the humanities, which puts physicians in touch with society and helps them gain understanding and compassion so basic to the art of healing is indispensable because of the growing complexity of society. However, the rapid development of medicine as an applied science also requires suitable preparation in scientific and mathematical disciplines.

The pre-professional education period is too early to expect students to have determined their ultimate goals in medicine. However, if students have tentative plans to engage in some aspects of biological research, they are encouraged to develop depth in the natural sciences and mathematics. Students who tentatively plan to engage primarily in clinical practice will benefit from a broad background in the humanities and may want to consider a concentration in a field other than science.

Medical education is viewed as a continuum. College, professional college, and then post-graduate education are all one training period. Hence, college courses which essentially will be repeated in professional school are considered of limited and short term value. Instead, students are well advised to broaden their horizons in both the humanities and sciences.

High School

A strong college preparatory course is recommended. Students should consider scheduling two years in a foreign language, four years of English, and as many liberal arts, mathematics and science courses as possible.

Requirements For Entrance

A minimum of 90 semester hours (3 years college work) in an *accredited* college is required. However, to provide an opportunity for in-depth study, the completion of a college major or undergraduate degree is strongly recommended. The new MCAT is required.

The undergraduate program must include the following:

<i>Course</i>	<i>Semester Hours</i>
BIOLOGY (With Lab) Unless Biology is chosen as the college major, additional electives in the field which may significantly duplicate courses given in medical school are less advantageous to the student than other electives.	1 year/12 semester hours
INORGANIC CHEMISTRY (With Lab)	1 year/8 semester hours
ORGANIC CHEMISTRY (With Lab) The requirement is for two semesters of general or inorganic chemistry (analytical chemistry may serve as part of this requirement) and a two semester complete course in organic chemistry.	1 year/8 semester hours
PHYSICS (With Lab) This should include a two semester complete course in physics. The student should register for the course which is commensurate with his mathematical background if more than one is available.	1 year/8 semester hours
HUMANITIES For these purposes, the humanities are defined as philosophy, literature (English or foreign), history, anthropology, general or comparative religion and sociology. Broad, introductory courses in at least four of these areas are encouraged unless one of the humanities or arts is chosen as the college major.	2 years/12-16 semester hours
ENGLISH Students must also complete a writing course or an English composition course. Students may <i>not</i> substitute a placement examination for this requirement.	
MATHEMATICS This must include material through introductory calculus <i>OR</i> a course in statistics.	

In addition to meeting specific requirements, applicants are encouraged to adopt an educational goal which includes exploration of areas of personal interest. This may vary from a thorough investigation of the natural sciences to the social sciences and humanities. In view of the rapidly broadening scope of medicine, a well-rounded education is considered optimum preparation.

Hours earned in professional colleges or schools which hold both regional collegiate accreditation and professional accreditation may be applied to the "90 hour general requirements." Examples of institutions referred to are Engineering and Technology, Collegiate Nursing, Pharmacy, Physical Therapy and other programs in the Allied Health area.

Hours may not be applied to specific group requirements for admission to the College of Medicine unless investigation (or previous UNMC experience) verifies that course content has been found equivalent to approved pre-professional courses offered by traditional undergraduate liberal arts colleges.

Hours awarded for CLEP Subject examinations must be verified by submission of official CLEP Score Reports. Scores must meet UNMC requirements for credit — usually the 50th percentile. If verified, the hours may be used to meet the "90 hour general requirement" but are not acceptable for application to the College of Medicine group requirements.

The Admissions Committee of the College of Medicine will not accept credit hours graded Pass-Fail towards the required courses and discourages applicants from taking more than 10 hours of Pass-Fail courses toward the 90-hour group requirements. In a situation where an applicant does not have the option of grades and only Pass-Fail courses are available, consideration will be given if the applicant can produce a written evaluation of each course taken on a Pass-Fail basis.

Application For Admission

Admission to the College of Medicine is granted without regard to age, handicap, sex, race, color, national origin or religious or political beliefs.

The College is deeply concerned about underserved rural and minority communities in the state. Because research data show candidates emanating from those areas are likely to return, the Admissions Committee gives particular attention to under represented minority applicants and to applicants from cities and towns with population under 15,000.

In considering scholastic records of applicants, greater weight is given to the quality of work than to an excess of credit hours over the minimum required number. Consideration is given also to appraisals of character, personal interviews, scores on the new Medical College Admission Test, and general fitness and promise of the candidate.

The following statement represents the guidelines regarding technical standards under which the Admissions Committee operates:

The objective of the faculty of the College of Medicine is the training of undifferentiated physicians with an adequate fund of knowledge in both basic and clinical sciences and the requisite skills to solve clinical problems while dealing sensitively with patients. Qualification for admission to and graduation from the College of Medicine is dependent upon possession of:

1. The intellectual capacity to meet curricular requirements.
2. The physical ability to master the skills involved in the independent practice of medicine.
3. The ability to communicate effectively with patients, peers and other members of the health care community.
4. The emotional stability to cope with the demands that characterize the practice of medicine.

The Admissions Committee considers, without bias, all applicants who meet these technical standards.

Application Procedure

The University of Nebraska College of Medicine is a participant in the American Medical College Application Service (AMCAS) of the Association of American Medical Colleges. Application Request Cards are available from premedical advisers and from participating medical schools. Forward your requests to the Registrar's Office, University of Nebraska Medical Center, 42nd and Dewey, Omaha, Nebraska 68105.

Complete instructions for proceeding with the application accompany the application packet received from the above source. Careful attention to all details listed will expedite the handling of applications. Changes in residency status cannot be implemented during the time an application is being considered. The application will be processed by AMCAS and forwarded to the University of Nebraska College of Medicine. Deadline for receipt of applications by AMCAS will be November 15, 1982 for 1983 admission.

Upon receipt of an application from AMCAS, the College of Medicine will request letters of reference, a photograph, and supplementary information.

A personal interview is required of each applicant. Interview sessions are held on the medical center campus and arrangements should be made through the Admissions Office of the College of Medicine. Interviews are conducted without knowledge of the academic credentials. Thus, the purpose of the interview is to assess personal attributes and the nature of the candidate's motivation.

Any applicant who has previously applied for admission must re-apply in the regular manner if consideration for a subsequent year is desired.

Special programs of study toward the degree of Doctor of Medicine can be arranged for individuals holding doctorates in other areas of science. These programs are individually designed by a faculty committee and take advantage of the talents and background of the applicant. Consultation with the Dean's Office prior to entering this program is required.

Admissions Committee

The Admissions Committee meets weekly from early January until late April. Notices of acceptance, rejection or "hold" are sent weekly to those candidates who were considered. Applicants on hold are given reconsideration in April. The remaining places are filled and an alternate list is developed from among these applicants. Each acceptee is given the opportunity to defer admission for one year.

Advanced Standing

If a vacancy exists, application for admission with advanced standing will be considered from students attending medical schools accredited by the Council on Medical Education or from Nebraska residents who attend a foreign medical school. In the case of the latter, performance on the MSKP examination will constitute an important aspect of the evaluation. Applications may be obtained from the Registrar's Office, University of Nebraska Medical Center, Omaha, Nebraska 68105.

An application fee of \$10 for residents and \$25 for non-residents is required. The fee is not applicable to tuition if the student is accepted for admission. It is not refundable. The student must furnish evidence of satisfactory completion of courses equivalent in kind and amount to

those taken by the class to which admission is sought. The student must also present a letter of recommendation from the Dean of the medical school last attended. The College of Medicine reserves the right in every case to give examinations in any or all subjects in which credit is requested.

Students who have been dismissed from another medical school may not be considered for admission to this College of Medicine.

Credit for Advanced Standing

According to the Board of Regent's policy, the Medical Center Registrar will maintain a record of names and credit hours of courses taken at other Colleges of Medicine, but grades received in courses presented for advanced standing credit will not appear on the permanent record sheet of the student.

The educational program of students admitted for advanced standing in the College of Medicine will be reviewed by the faculty of the College of Medicine. The faculty will decide about the applicability of each course toward the requirement for graduation.

Residency Status

If you or your parents are residing in a state other than Nebraska, or if you have moved to Nebraska within the past three years, it will be necessary for you to apply for resident status. The Registrar's Office, 3018 Conkling Hall, University of Nebraska Medical Center, 42nd and Dewey, Omaha, Nebraska 68105, has full information as well as application forms for residency.

Registration And Admission To Classes

When an applicant receives notice of acceptance for entrance into the College of Medicine, the applicant's response to the acceptance offer must be received within two weeks. A deposit of \$100.00 to hold a position as a member of the class must be received within thirty days. The pre-enrollment deposit is applicable to tuition. Of the \$100.00 deposit, \$80.00 will be refunded to a student who finds it necessary to withdraw during or prior to the first week of classes.

All men and women planning to attend the University of Nebraska Medical Center under Chapters 31, 34 and 35 of the Educational and Assistance and Vocational Rehabilitation Laws administered by the Veterans Administration should inquire at the Registrar's Office of the University of Nebraska Medical Center, 3018 Conkling Hall, before they register to make sure that all necessary steps have been taken.

Registration for first-year students is accomplished at orientation. Registration for subsequent semesters will be completed approximately two weeks preceding the beginning of each semester. Any change in registration during the first two years must be approved by the Associate Dean for Academic Affairs or recommended by the Scholastic Evaluation Committee.

Each student enrolling in the College of Medicine agrees to meet the normal requirements for fulfillment of educational training, including attendance at classes, conjoint examinations, comprehensive examinations, and clerkship requirements under the normal schedules. Implied in the acceptance is the understanding that medical education will take precedence over other activities.

CURRICULUM

A 4-year (158 week) course of studies leading to the M.D. degree was implemented in 1979. The program is designed to qualify the medical graduate for residency training in any field of medicine, but especially in the primary care fields and to prepare graduates for a lifetime of continuing professional education.

Phase 1 of the curriculum (4 semesters, 2 years) requires mastery of the basic science disciplines (anatomy, behavioral science, biochemistry, microbiology, pathology, pharmacology and physiology) and acquisition of basic clinical skills and insights. Phase 2 (86 weeks) requires that the student develop thoroughness in evaluating clinical problems, a strong capacity for rational therapeutic decisions, high standards of professional conduct, and productive habits for independent study. Forty-eight weeks of Phase 2 are allotted to the required clinical clerkships in family practice, internal medicine, obstetrics and gynecology, pediatrics, psychiatry, and surgery. The student then completes an additional 38 weeks of elective clinics or basic science experiences. To qualify for graduation, each student demonstrates to the faculty that the knowledge, skills, and attitudes necessary for successful entry into the residency (graduate) phase of medical education have been acquired.

The Curriculum Committee, with student representation, is responsible for curricular change and evaluation. Written educational goals and objectives are required of all course or clerkship directors.

Auditing Courses

A course may be audited with the permission of the instructor and the Dean of the College in which the course is offered. The student must be academically qualified and there must be adequate space and facilities for the student to audit a course. Since clerkships demand participation, auditing is limited to didactic courses. There is no credit for an audited course. Application forms for auditing courses may be secured from the Assistant Registrar for Academic Records, Room 3020, Conkling Hall. This form must be completed by the sixth day of the current term. The fee for auditing a course is one-half the current resident credit hour fee.

Student Research Opportunities

Medical students can acquire research experience during the summer vacation after the first year or by pursuing a research elective during the clinical phase of the curriculum. It is recommended that all students consider participation in research activity in order to understand how medical progress is made and to test the potential of incorporating research into their career plans.

1. Research Projects

Many of the faculty are interested in providing research experiences for medical students. Stipends are available for some research endeavors scheduled during vacation periods. Students may not accept stipends for research if academic credit is being given. For a list of interested faculty and their research interests, as well as information on the availability of stipends and fellowships for work either in the College of Medicine or at other institutions, contact the Curriculum Office.

2. Honors Program

Students whose academic performance during the first two years of the medical curriculum places them in high rank as determined by the Scholastic Evaluation and Curriculum Committees will be eligible for the Honors Program. The intent of this program is to encourage highly qualified students to go beyond the standard curriculum by developing a project that will lead to a significant research experience or substantially different clinical competence than that developed in the normal curriculum. Information about this program can be obtained from the Curriculum Office.

3. Student Research Forum

An Annual Student Research Forum is sponsored on the campus. Outstanding presenters are selected to represent the College at regional and national student research meetings. An opportunity is provided for students from all colleges at UNMC to present papers or posters describing their laboratory or clinical research experiences.

Special Academic Assistance For Students

In recognition of those students from nontraditional background or those whose educational or social background has been disadvantaged, the college offers various forms of special assistance. Under the guidance of an individual advancement program, it is possible to reduce the number of courses taken and thereby reduce the academic load. This is accomplished by spreading the curriculum of Phase 1 over three years instead of two. The student must attain the same level of academic achievement as his or her colleagues in the regular program but may have longer to do so. Concurrence on the schedule must be obtained from the Associate Dean for Academic Affairs and the Scholastic Evaluation Committee. Tutoring in small groups or on an individual basis is available for any student who may be having academic difficulty.

COURSE DESIGNATIONS

1st Year, 1st Semester	Dept./Course Number	Credit
Human Gross Anatomy I	04/510	4
Histology	04/511	2
Neuroanatomy	04/512	2
Human Embryology I	04/513	2
Clinical Medicine/Living Anatomy	19/540	2
Biochemistry	08/510	6
1st Year, 2nd Semester		
(First 8 Weeks)		
Human Gross Anatomy II	04/520	2
Histology II	04/521	2
Human Embryology II	04/523	1
Clinical Medicine/Living Anatomy	19/542	1
Physiology	68/510	4
Genetics	19/518	1
Introduction to Behavioral Science	70/502	2
(Second 8 Weeks)		
Physiology (Cont.)	68/510	5
Biochemistry	08/511	2
Genetics (Cont.)	19/518	1
Medical Humanities	28/550	2
Principles of Primary Care	18/512	2
Basic Psychiatry	70/602	2
Introduction to Behavioral Science (Cont.)	70/502	2
1st Year, May Term		
Medical Humanities (Cont.)		
Principles of Primary Care (Cont.)		
Basic Psychiatry (Cont.)		
Introduction to Behavioral Science (Cont.)	70/502	2
Medical Jurisprudence	28/502	1
2nd Year, 1st Semester		
Microbiology and Immunology I	32/620	6
Pathology I	56/620	5
Pharmacokinetics	66/610	1
Neuro-psychopharmacology	66/611	2
Epidemiology	18/604	1
Perspectives in Aging	19/620	1 (8 week
Clinical Medicine III	19/642	2
Neuroscience	36/604	2 (12 week
2nd Year, 2nd Semester		
Microbiology and Immunology II	32/621	3
Pathology II	56/621	5
Clinical Pathology	56/622	5
Systems Pharmacology I	66/612	2
Systems Pharmacology II	66/613	2
Clinical Pharmacology	66/623	1
Clinical Medicine IV	19/644	2
2nd Year, May Term		
Ophthalmology	44/602	1
Reproductive Medicine	40/614	2
3rd Year Clerkships		
Family Practice Preceptor (Some- time during Jr. or Sen. Yr.)	18/705	8
Internal Medicine	20/705	8
Obstetrics/Gynecology	40/705	8
Pediatrics	60/606 and 60/607 or 60/608 and 60/609 or a combination	8
Psychiatry	70/705	8
Surgery	80/705	8
4th Year Clerkships		
Electives	Each elective is one month in duration	40

CURRICULUM
YEAR 1 – BASIC SCIENCE

FIRST SEMESTER
(16 weeks)

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8					
9	Pan Anat Tutorial			Embryo	Histo
10	Biochem	Histo Neuro	Biochem	Histo Neuro	Biochem
11		Embryo		Anat/Emb Supp	
12	L U N C H				
1	Histo Neuro	Gross Anatomy	Applied Anatomy	Clin Neuro (wk 5-12)	Pan-Anat H E L P SESSIONS
2	Lab Intro	Gross Lab	Clinical Anatomy	Sec B Hist/Neur (Lab 2-4)	
3	Gross Lab		Sec A Hist/Neur (Lab 3-5)	Sec A Liv Anat (3-4:30)	
4			Sec B Liv Anat (3:30-5)		

SECOND SEMESTER – 1st HALF
(8 weeks)

8					
9	Histo/Gross Tutorial	Embryo	Histo	Embryo	Histo
10	Physiology	Physiology	Physiology	Physiology	Genetics
11					Behavioral Science
12	L U N C H				
1	Histo	Gross	Applied Anatomy	Anatomy Embryo Supplement	Pan-Anat H E L P SESSIONS
2	Gross Lab	Gross Lab	Clinical Anatomy	Sec B Histo (Lab 2-4)	
3			Sec A Histo (Lab 3-5)	Sec A Liv Anat (3-4:30)	
4			Sec B Liv Anat (3:30-5)		

SEMESTER I

(Aug. 23-Dec. 17, 1982)

Orientation – Aug. 20, 1982

Labor Day – Sept. 6, 1982

Thanksgiving – Nov. 25-28, 1982

Christmas Holiday – Dec. 18-Jan. 2, 1983

SEMESTER II

(Jan. 3, 1983-May 1, 1983)

SEMESTER II (2nd Half)

(Feb. 28-May 1, 1983)

Spring Break – Mar. 20-27, 1983

MAY TERM

(May 2-29, 1983)

Review for Comprehensives

May 23-26, 1983

Comprehensives

May 27-28, 1983

CONJOINT DATES

Sept. 18, 1982

Oct. 16, 1982

Nov. 13, 1982

Dec. 18, 1982

Jan. 29, 1983

Feb. 26, 1983

Apr. 2, 1983

Apr. 30, 1983

May 21, 1983

CURRICULUM
YEAR 1 – BASIC SCIENCE
SECOND SEMESTER – 2nd HALF
 (8 weeks)

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8					
9	Primary Care	Biochem	Biochem	Biochem	Biochem
10	Physiology	Physiology	Physiology	Physiology	Genetics
11					Behavioral Science
12	LUNCH				
1	Behavioral Science	Physiology	Behavioral Science	Physiology	Behavioral Science
2	Medical Humanities	Primary Care Discussion Groups ½	Medical Humanities	Primary Care Discussion Groups ½	Medical Humanities
3					
4					

MAY TERM
 (3 weeks)

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8					
9	Basic Psychiatry	Basic Psychiatry	Basic Psychiatry	Basic Psychiatry	Basic Psychiatry
10	Med Humanities	Basic Psychiatry	Med Humanities	Basic Psychiatry	Med Humanities
11	Med Humanities	Primary Care	Med Humanities	Med Humanities	Med Humanities
12	LUNCH				
1	Medical Jurisprudence	Primary Care Discussion Groups ½	Medical Jurisprudence	Primary Care Discussion Groups ½	Medical Jurisprudence
2					
3					
4					

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Feb. 26, 1983

Apr. 2, 1983

Apr. 30, 1983

May 21, 1983

CURRICULUM
YEAR II – BASIC SCIENCE

FIRST SEMESTER
(16 Weeks)

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8:00	MICRO	MICRO	MICRO	MICRO	MICRO
9:00		LABS ARE INCLUDED IN THIS TIME AVERAGING 6 HRS PER WK.			
10:00	Gen Path	Gen Path	Gen Path	Gen Path	Gen Path
11:00	Pharm	Epidem	Pharm	Pharm	Pharm
noon	L U N C H				
1:00	Neuro Science	Clinical Medicine	Neuro Science	Clinical Medicine	Neuro Science
2:00	Persp in Aging		Persp in Aging		
3:00					
4:00					

Clinical Continuity – Individually arranged throughout the year

SECOND SEMESTER
(16 Weeks)

8:00		Micro Lab			
9:00	Micro		Micro	Micro	Micro
10:00	Gen Path	Gen Path	Gen Path	Gen Path	Gen Path
11:00	Pharm	Pharm	Pharm	Pharm	Pharm
noon	L U N C H				
1:00	Clin Path	Clin Path	Clin Path	Clin Path	Clin Path
2:00		Clinical Medicine		Clinical Medicine	
3:00					
4:00					

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(Aug. 23-Dec. 17, 1982)

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SEMESTER II

(Jan. 3, 1983-May 1, 1983)

SEMESTER II (2nd Half)

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Review for Comprehensives

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CONJOINT DATES

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Nov. 13, 1982

Dec. 18, 1982

Jan. 29, 1983

Feb. 26, 1983

Apr. 2, 1983

Apr. 30, 1983

May 21, 1983

MAY TERM
(3 Weeks)

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8:00					
9:00	Ophthalmology	Ophthalmology	Ophthalmology	Ophthalmology	Ophthalmology
10:00	Reproductive Medicine	Ophthalmology	Reproductive Medicine	Ophthalmology	Reproductive Medicine
11:00		Reproductive Medicine		Reproductive Medicine	
noon					
1:00					
2:00					
3:00					
4:00					

SEMESTER I

(Aug. 23-Dec. 17, 1982)

Orientation — Aug. 20, 1982

Labor Day — Sept. 6, 1982

Thanksgiving — Nov. 25-28, 1982

Christmas Holiday — Dec. 18-Jan. 2, 1983

SEMESTER II

(Jan. 3, 1983-May 1, 1983)

SEMESTER II (2nd Half)

(Feb. 28-May 1, 1983)

Spring Break — Mar. 20-27, 1983

MAY TERM

(May 2-29, 1983)

Review for Comprehensives

May 23-26, 1983

Comprehensives

May 27-28, 1983

CONJOINT DATES

Sept. 18, 1982

Oct. 16, 1982

Nov. 13, 1982

Dec. 18, 1982

Jan. 29, 1983

Feb. 26, 1983

Apr. 2, 1983

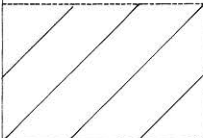
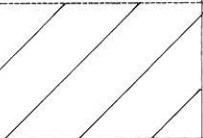
Apr. 30, 1983

May 21, 1983



FIRST SEMESTER
August 23 — December 17, 1982

CLINICAL MEDICINE

SOPHOMORE YEAR

	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
Lectures 1:00 — 3:00 PM Tuesday & Thursday Aug. 23 — Nov. 24	Introduction	Head & Neck	Lungs	Heart	Life Support
Schedule with Faculty Preceptor			Clinical Introduction Faculty Preceptor		

SECOND SEMESTER
January 3 — April 30, 1983

	JANUARY	FEBRUARY	MARCH	APRIL	MAY
Lectures 2:00 – 3:00 PM Tuesday & Thursday	Clinical Systems Lectures ----->				
Clinical Matrix Groups 3:00 – 5:00 PM	Matrix Life Support Begins ----->				
Schedule with Preceptor	Physical Exam Pairs ----->				

CURRICULUM **PHASE II – CLINICAL**

JUNIOR YEAR

JULY-AUG	SEPT-OCT	NOV-DEC	JAN-FEB	MARCH-APRIL	MAY-JUNE
REQUIRED CLERKSHIP (Internal Medicine)	REQUIRED CLERKSHIP (Surgery)	REQUIRED CLERKSHIP (Pediatrics)	ELECTIVES (sometime in Jr. Yr.) or COMMUNITY PRECEPTOR	REQUIRED CLERKSHIP (Psychiatry)	REQUIRED CLERKSHIP (OB/GYN)

In Phase II of the curriculum the student enters into clinical training. The student is required in his junior year to take the basic clerkships of Internal Medicine, Obstetrics-Gynecology, Pediatrics, Psychiatry, and Surgery; all of them are eight weeks in duration. The required eight weeks with a Community Preceptor is taken sometime between January of the junior year and December of the senior year.

SENIOR YEAR

JULY	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MARCH	APRIL	MAY
ELECTIVES or COMMUNITY PRECEPTOR (to be taken between Jan. of Jr. Yr. and Dec. of Sen. Yr.)		ELECTIVE	ELECTIVE	ELECTIVE	ELECTIVE	ELECTIVE	ELECTIVE	VAC. (1 mo. any time Jr. or Sen. Yr.)	ELECTIVE	ELECTIVE

In the remaining year the student chooses from a wide range of electives. Ten 4-week electives are required. A one-month vacation can be scheduled anytime during the junior or senior year.

EVALUATION OF STUDENT PERFORMANCE

The Scholastic Evaluation Committee, the Appeal Board, and the Faculty Council for Governance have the responsibility and prerogative for determining the fitness of a student to continue in the college. Any student who by quality of work, by conduct or other reason indicates unfitness to enter the practice of medicine, may be dismissed from the college.

Conjoint Examinations

During the basic science sequence, students are examined once every four weeks in conjoint examinations. Each course participating in a semester is allotted time in the examination in proportion to the hours of credit in the course. The specific dates for these examinations are given to the students at the beginning of each semester. The usual examination period is from 8 a.m. to 12 noon on Saturday. Special arrangements are made with students who are unable, because of religious restrictions, to sit for examinations on Saturday. Students seeking to be excused from a scheduled examination must make prior arrangements with the Conjoint Examination Coordinator. Medical students as future physicians are expected to meet their obligations in spite of minor adversities. However, excuses from scheduled examinations will be granted for compelling reasons.

Performance on the conjoint examinations will constitute at least 75% of the individual's evaluation except in those courses that have significant laboratory experience and have received permission to increase the percentage assigned to laboratory examinations. Examinations other than the conjoint may be given. If a course instructor plans to conduct additional examinations, the times at which these will be given, the type of examination and how much value these will hold in assessing course achievement must be provided to students.

Comprehensive Examinations

Students enrolled before September 2, 1980, are required to present passing scores in Parts I and II of the National Board Examination in order to graduate.

For students enrolled on or after September 2, 1980, the comprehensive examination will be internally generated. Comprehensive examinations in the subjects of Anatomy, Physiology, Biochemistry, and Behavioral Science will be given during the last week of the first year. Similar comprehensive examinations in the subjects of Microbiology, Pathology, and Pharmacology will be given at the termination of the second year. A comprehensive examination in clinical disciplines of Internal Medicine, Family Practice, OB/GYN, Pediatrics, Psychiatry, and Surgery will be given at the termination of the mandatory clerkship schedule. Students must pass these comprehensive examinations as a prerequisite for promotion and graduation. A Pass/Fail grading system is used for these examinations. The passing level of individual segments will be set by the departments.

Grading System

The grading system for classes entering in 1979 or earlier is as follows:

H - Honors

P - Pass

F - Fail

Any course which, for good reason, has not been completed, but in which progress has been satisfactory, may be reported as "Incomplete."

The grading system for the classes entering in 1980 and all classes thereafter is as follows:

A - Excellent performance

B - Good performance

C - Satisfactory performance

D - Marginal performance

F - Fail

The above letter grades do not have or require fixed numerical percentage equivalents.

A course which, for good reason, has not been completed, but in which progress has been satisfactory, may be reported as "Incomplete." The department issuing the grade of "Incomplete" will indicate by departmental record, with a copy to the student, how it is to be removed. A student must remove an "Incomplete" by the end of the semester subsequent to which the "Incomplete" was received or the grade will be converted automatically to a failure. The department may petition the Scholastic Evaluation Committee to make individual exceptions to this rule.

The grading system was adopted by the faculty in order to single out outstanding students who may be encouraged to vie for very competitive post-graduate positions and also to identify students who need extra attention because of weakness in one or more areas. The college feels that students learn for the sake of helping those who are sick or for discovering new knowledge rather than simply for getting grades. Students are encouraged to view grading systems from this perspective.

Procedures have been developed in accordance with the Bylaws of the Board of Regents to handle student appeals of academic evaluation. Students who believe that evaluation of their academic progress has been prejudiced or capricious should consult with the Associate Dean for Academic Affairs who will provide them with the procedural guidelines or they may consult the UNMC Student Handbook which summarizes the procedure. A written appeal must be received within 15 days after formal notification of the grade by the Registrar's office. If and when examination papers are returned to students they represent a true record of the student's performance.

Class Performance and Promotion

Instructors in each of the courses are responsible for evaluation of the student's academic performance. Written or oral examinations, personal observations or any other method may be used in making assessments. The student's total performance is reviewed at the end of each semester by the Scholastic Evaluation Committee. The committee is asked to decide whether a student should advance, complete additional work, repeat a course(s) or, if work has been unacceptable, to recommend the student be dropped from enrollment.

A complete description of the policies used by the Scholastic Evaluation Committee is contained in a document entitled "Guidelines for Scholastic Evaluation Committee." Each student is given a copy of the guidelines shortly after matriculation and each is asked to become familiar with the contents. As a brief summary it should be noted that the faculty expects students to attain a C average for each academic year and to pass the appropriate comprehensive examinations in order to be promoted, and that a grade of "Fail" in a course is usually indication for repetition of the course. Failing performance in three or more courses is usually indication for dismissal.

Right of Appeal

If it becomes necessary to discontinue enrollment the student may request review of the situation by an Appeal Board. The Appeal Board, appointed by the Dean, is composed of a minimum of four members of the faculty, none of whom were involved in the original recommendation for termination. The Associate Dean for Academic Affairs and the chairman of the Scholastic Evaluation Committee are nonvoting members of the Appeal Board. Care will be taken to give full respect to the rights of students when decisions are made about them.

REQUIREMENTS FOR GRADUATION

Requirements for graduation must be met within five years of matriculation into the College of Medicine, except when the Dean determines that a student's course of studies has been interrupted by research experience, illness, disability, or financial exigency, or when an approved leave of absence has been granted.

The degree of Doctor of Medicine is granted only to candidates who:

1. Are at least 21 years of age.
2. Possess a good moral reputation.
3. Have pursued the study of medicine for at least two years at the University of Nebraska College of Medicine.
4. Have successfully passed all departmental examinations, have received grades of Pass or A, B, C or D in all courses, and obtained at least a C average.
5. Have successfully passed Parts I and II of the National Board Examination or the three comprehensive examinations as described in the section on comprehensive examinations.
6. Have discharged all indebtedness to the University of Nebraska.

The Scholastic Evaluation Committee may select not more than eight students from the top 10 percent of the graduating class and recommend them for the degree of Doctor of Medicine with Distinction.

The Scholastic Evaluation Committee may also select not more than four students from the top 10 percent of the graduating class who have shown outstanding scholarship or who have made an outstanding contribution to medical science and recommend them for the degree of Doctor of Medicine with High Distinction.

Applications For Degree

Each student who expects to receive a diploma must file an application of candidacy for the diploma in the Academic Records Office, Room 3020, Conkling Hall. Announcements concerning deadlines for applications are posted throughout the campus and published in the internal communications journals of the Medical Center.

Degree of Bachelor of Science in Medicine

Students presenting premedical college credits of high standard and who have satisfactorily completed all courses of the first two years in medicine, but who have not fulfilled the requirements for the degree of Bachelor of Science or Bachelor of Arts in a College of Arts and Sciences, may become candidates for the degree of Bachelor of Science in Medicine.

Courses Leading to the Degrees of Bachelor of Arts or Bachelor of Science and Doctor of Medicine

Students who have transferred from the University of Nebraska Lincoln or Omaha Colleges of Arts and Sciences may earn the Bachelor of Arts degree or Bachelor of Science degree, providing all other requirements have been fulfilled, by using the subjects of the first year of the medical curriculum as a major.

These degrees are conferred at a commencement on the UNL or UNO campus.

Candidates for baccalaureate degrees in other institutions may arrange with their colleges to accept such degrees, or otherwise satisfy the requirements of those institutions.

Commencement Exercises

Commencement attendance is required for those completing degree requirements in May and December unless explicitly excused by the Dean of the appropriate college concerned. Those graduating at other times will receive diplomas when requirements are fulfilled, but have the privilege of participating in the next formal commencement.

Alumni Association

Alumni of the University of Nebraska College of Medicine maintain an active organization with headquarters in Omaha at the College. Activities include sponsorship of class reunions and social functions at various national meetings attended by graduates of the College of Medicine. The Association supports a student loan and scholarship fund, a library endowment fund, and four other funds. Six full tuition scholarships are paid by the Alumni Association. A news bulletin is sent to members on a quarterly basis.

GENERAL POLICIES

Student Rights and Responsibilities

In accordance with Section 5.4 of the Bylaws of the Board of Regents and in order to insure the protection of students' rights, the University of Nebraska Medical Center has established general procedures which must be followed if any disciplinary action is proposed against students. Students will be informed in writing by the Dean's Office of the specific charges, the supporting evidence, and the proposed disciplinary action. The Office of the Dean will also inform students of their right to appeal. The UNMC "Procedural Rules Relating to Student Discipline" may be found in the UNMC Student Handbook. The procedures insure that the rights of students have been carefully protected.

Students at the University of Nebraska Medical Center, on clerkships in the Hospital or in Clinics, shall conform to and be guided in their actions by all the regulations which apply to medical staff and University of Nebraska Hospital personnel.

Student Records

The academic record of a student is confidential and an official transcript of such record is sent only at the request, or with the consent, of the student or alumnus. The only information that will be released without the student's permission is name, dates of attendance and degree(s) awarded, if any.

The records kept by the Dean's Office are the official records of the College. They are available to the student and may be inspected upon request. The official records include the original application for admission with its supporting documents, unless the student has previously waived the right to see them; the narrative report describing the student's performance in the medical curriculum; grade sheets; any entries about him or her in the minutes of the Scholastic Evaluation Committee; and finally the letter of recommendation written in support of application for residency. In effect there are no records kept by the Dean's Office which the student may not peruse.

Family Rights and Privacy

The University of Nebraska complies fully with the Family Educational Rights and Privacy Act of 1974 which was designed to protect the privacy of educational records. Students have the right to inspect and review their educational records in departmental offices and the Dean's office, and to request the correction of inaccurate or misleading data through informal and formal hearings.

The policy concerning student records may be found in the UNMC Student Handbook or in the Office of Student Services.

Leave of Absence or Withdrawal

Experience suggests that ability to perform satisfactorily in a demanding curriculum such as is the case in medicine can be severely compromised by internal or external forces not clearly understood by the

student nor readily under his or her control. In many instances leaving the stressful environment is a suitable way to gain perspective because it provides uninterrupted time to analyze the problem, develop one's own valid solutions, and evaluate their efficacy. Leaves are particularly effective in dealing with problems of motivation. A leave may also be the most effective way of coping with severe financial problems, complicated relations with significant others or health related difficulties. Because it has been found that leaves of absence are almost always very helpful, the process to arrange them is a simple one.

Students are asked to consult with Dr. Binhammer in the Dean's Office and then make a formal request in writing. Ordinarily a leave of absence is granted for a year or a portion thereof, but it may be extended for more than a year if circumstances warrant.

Students who feel the necessity to withdraw from enrollment are asked to consult with Dr. Binhammer before taking action.

THE STUDENT BODY AND STUDENT ORGANIZATIONS

At the present time there are 153 positions in the entering class. The total enrollment numbers approximately 600 students of whom 33% are women. The attrition rate is low and is for the most part attributable to illness or loss of motivation rather than academic failure. The college subscribes to the policy that there should be careful selection for admission to minimize attrition.

The student body has representation upon virtually all the planning and governing bodies of the college. Student members are specified on Standing Committees for Admission, Curriculum and Scholastic Evaluation. It is the policy to include students on all special or ad hoc committees that deal with issues which have an impact upon student life.

Medical Center Student Senate

The Medical Center Student Senate governs the organization and regulation of student activities of the College of Medicine, College of Nursing, College of Pharmacy, School of Allied Health Professions, and UNMC students in the Graduate College. It serves as a liaison group between students in the various disciplines and works toward the common goals of students at UNMC. Each college or school elects representatives to serve on the Medical Center Student Senate.

Organization of Student Representatives

The OSR, established by action of the Assembly of the Association of American Medical Colleges (AAMC), provides a mechanism for making student opinion known to the AAMC. Students have two votes on the AAMC Executive Council and are recommended to Standing Committees. An elected representative from the University of Nebraska attends the AAMC Annual Meeting and the annual regional meeting of the Group on Student Affairs.

American Medical Student Association (AMSA)

Over twenty thousand medical students in American medical schools are AMSA members. The AMSA chapter of the University of Nebraska College of Medicine is the eighth largest in the country and is one of the most influential. AMSA represents student views concerning health care delivery and all current medical issues. In addition, AMSA provides a large number of valuable services to its members. For example, members can participate in a four-week preclinical experience called MECO in the summer of their first year. AMSA arranges for freshmen to spend time in the UNH Emergency Room and organizes many noon conferences and films of student interest. At Nebraska, AMSA has been especially influential in developing and establishing community services such as interdisciplinary health teams and health screenings.

Student National Medical Association

The SNMA is a nonprofit corporate association of minority students in pursuit of a medical education. SNMA is dedicated to leadership development, social awareness, service to humanity, and excellence as a physician.

Student Association for Rural Health

SARH was organized by students at the Medical Center to promote interest in health careers in rural areas of Nebraska. Outreach programs to youth in rural areas to encourage consideration of a health career have been developed. The Association also gives support to enrolled students who have expressed interest in rural health care delivery.

Alpha Omega Alpha

A.O.A. is a nonsecret, national medical college honorary society. Membership is based upon scholarship and moral qualifications.

Elections are limited to those whose scholastic record places them in the upper 25 percent of their class, but the total number of members shall not exceed one-sixth of the total number expected to graduate. The University of Nebraska Chapter was organized November 2, 1914.

FEES AND EXPENSES*

Expenses of medical students include "educational expenses" and also "living expenses".

In 1982-83 a Nebraska resident enrolled in medicine (pre-clinical) will pay \$2,232 in tuition for nine months, \$71 in fees, and \$647 for equipment and books, totalling \$2,950.

Juniors and seniors in medicine attend twelve months and, if Nebraska residents, will pay \$2,976 in tuition, \$91 in fees, and \$483 for equipment and books, for a total yearly cost for education of \$3,550.

"Living expenses" are the major cost of being a student and cover room, board, transportation, and personal needs. Estimates are based principally on Department of Labor "national average consumption

budget standards at a moderate level" and are as follows: nine months for single students (\$5,000), married student (\$6,600), and married student with one child (\$8,700); twelve months for a single student (\$6,672), married student (\$8,800), and a married student with one child (\$11,600).

Required Fees In 1982-83 Include:

Student Health Service fee (inpatient coverage for 12 months) . . .	\$91.00
Student Health Service fee (inpatient coverage for 9 months)	50.00
Medical Center Student Senate fee for 1 year	3.00
Service charge for late payment of tuition	20.00
Service charge for issuance of "bad" check	3.00
Add/drop course	5.00
Anatomy laboratory use fee	65.00
Medical instruments, name tags, white jacket	prices vary (through the bookstore)
Transcripts of permanent record (first copy)	3.00
Transcripts of permanent record (additional copies on the same order)	1.00
Replacement of photo identification card	5.00
Microscope rental (1 year)	25.00
Locker rental (1 year)	2.00

Refundable Deposits

Photo identification card	1.00
Pre-enrollment deposit (applies to tuition)	100.00
Key	1.00

*Tuition, fees, and deposits are subject to change without notice. Additional laboratory fees may be established.

Tuition refunds

A student who withdraws from the University during a term for which he/she is registered is entitled to claim a refund of tuition. The University's current policy for a refund of tuition is:

First week	100%
Second week	75%
Third week	50%
Fourth week	25%
Fifth week	None

Microscopes

University owned microscopes are available for a small fee (\$25.00) for use in the teaching laboratory during scheduled laboratory and study sessions. However, students may find it advantageous to provide their own microscopes for full-time use. If so, the microscope should meet these qualifications: 3 objectives including 16mm, 4mm and oil immersion objectives, substage condenser and substage lamp or other illuminator, at least 10x oculars and mechanical stage.

FINANCIAL ASSISTANCE

The University of Nebraska Medical Center has financial aid programs to assist students with unmet financial need. The program operates on

the premise that students and parents have a responsibility to meet as much of the educational and related costs as possible. The Medical Center is prepared to supplement family contributions from its aid sources and to assist students in obtaining assistance from outside sources. The University of Nebraska Medical Center Office of Scholarships and Financial Aid administers the financial aid programs.

Application Procedure

All financial aid programs require annual application. Applicants need not apply for a specific scholarship or award as applicants are evaluated in terms of their eligibility for all forms of assistance. All applications for aid in which "financial need" is a consideration require students and parents to complete a financial statement.

Application forms and instructions are mailed automatically to all students accepted for enrollment into Medical Center programs. Financial statements for "need" based programs are forwarded upon request.

The deadline for applications and financial statements is March 1. Students receiving acceptances after February 1 are given a 30 day period in which to complete financial aid forms. Official notification of financial aid awards is made as early as possible before the start of each school year.

Types of Aid

There are three basic types of financial aid available through the University of Nebraska Medical Center: scholarships or grants, loans, and student employment on a limited basis.

Detailed information about the various sources of financial aid and estimated expenses for all or specific University of Nebraska Medical Center educational programs is available upon request from the Office of Scholarships and Financial Aids, Conkling Hall, University of Nebraska Medical Center, Omaha, Nebraska 68105, telephone (402) 559-4199. Major sponsors of aid sources are summarized below.

University of Nebraska Medical Center and University of Nebraska Foundation Scholarships or Grants and Loans

A number of scholarship, grant, and loan funds are available. Some were established by the University Board of Regents and others made available by private donors.

Generally, scholarship or grant awards are \$200 to full tuition and are awarded for one year. Loans up to \$2,000 per year can be obtained.

Federal Government Aid Programs

The Medical Center participates in and administers several federal grant and loan programs. Demonstrated "financial need" is the prime eligibility criterion for these programs, therefore, a financial statement must be filed. The federal government also sponsors a program of guaranteed loans primarily made by banks, savings and loan associations, and credit unions. Financial need is not always a criterion for guaranteed loans. The federal government pays the interest for eligible students during school. In addition, various governmental agencies offer educational assistance.

Community and Other Sources

Financial aid is also available from community agencies, foundations, corporations, unions, religious organizations, and civic and cultural groups. Assistance from these sources may be in the form of scholarship or loan.

Nebraska Medical Student Assistance Act

Long term low interest loans made available by the State to a maximum of 10 medical students yearly who plan practice in a rural area.

Emergency Loan Funds

Loans in small denominations are available on a short-term basis to meet "emergency" needs. Students should contact the Office of Scholarships and Financial Aids when an emergency arises.

Affidavit of Educational Progress

To receive federal aid students must be making "satisfactory progress" toward their degree according to the standards and practices of the institution.

Continuation of Aid

Students must file a financial statement each year if applying for aid in which "financial need" is a consideration. Students must also apply each year for scholarships which are not based on "need." Renewal in either case is not automatic. Applications and financial statements must be completed before March 1st for the following academic year.

STUDENT HEALTH SERVICES

The Student-Employee Health Service is directed by Dr. Robert Bass, Chairman of the Department of Family Practice. The health service is designed to provide outpatient care for enrolled students and optionally for their dependents. Routine health care — TB testing, immunizations, diagnosis and treatment of episodic illness — is provided in attractive surroundings by physicians associated with the health service. Participation is dependent upon payment of tuition and the student health service fee.

If specialized care is deemed necessary students will be referred to consultant specialists without additional charge.

Since costs of hospitalization and inpatient care are not covered for students or dependents, students are urged to obtain suitable health insurance. A policy is available through the Student Services Office.

MINORITY STUDENT AFFAIRS OFFICE

The Office of Minority Student Affairs was created to assist the Medical Center in reaching its commitment to train health professionals for underserved communities in Nebraska as well as in other parts of the nation. Shortages of health professionals are particularly acute in minority communities. Therefore, Blacks, Chicanos and Native Americans are especially sought for careers in medicine, nursing, pharmacy, dentistry, and allied health.

UNMC Office of Minority Student Affairs is responsible for planning and implementing of programs for recruitment, admission, retention, and progression of ethnic minority students and economically disadvantaged students. Services include:

1. Personal and educational counseling on all UNMC colleges and programs including the College of Dentistry on the UNL Campus.
2. Assistance to accepted applicants in locating suitable housing and jobs for the spouse.
3. Establishment of an Academic Support Program for enrolled students.
4. Advisory support to the Student National Medical Association (SNMA) and the UNMC Committee for Minority Concerns.
5. Social and cultural functions for enrolled students and local pre-professional students.
6. Summer enrichment programs for college students interested in the health professions.
7. Various motivational activities for local high school students.

Additionally, the Office of Minority Student Affairs serves as a resource for groups and departments sponsoring cultural awareness activities for all students and employees of the Medical Center and for the public.

For further information, please contact:

Anece McCloud
Minority Student Affairs
UNMC
42nd and Dewey Avenue
Omaha, Nebraska 68105
402/559-4437

**TEXTBOOK
OF**

MEDICINE

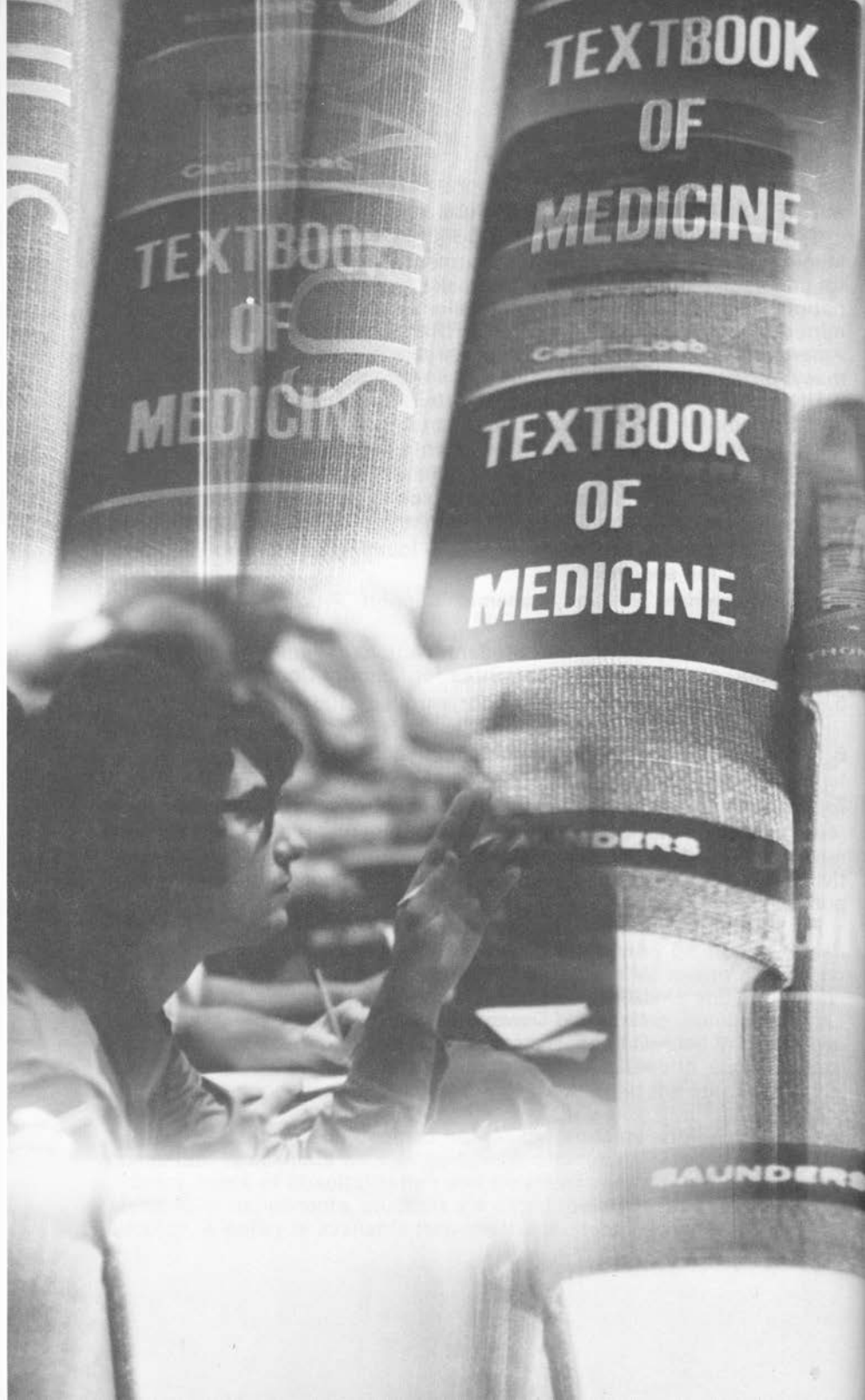
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**TEXTBOOK
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SAUNDERS



DEPARTMENTS OF INSTRUCTION

ANATOMY

PROFESSORS William K. Metcalf (Chairman), M.D. 1960 Bristol (England), Paul J. Gardner (Vice-Chairman), Ph.D. 1964 Nebr., Robert T. Binhammer, Ph.D. 1955 Texas, Charles A. Blake, Ph.D. 1972 Calif. at L. A., Edward A. Holyoke, M.D. 1934, Ph.D. 1938 Nebr., John S. Latta (Emeritus), Ph.D. 1920 Cornell, Norah F. Metcalf, M.B., B.S. (M.D.) 1943 Durham (England), John G. Sharp, Ph.D. 1971 Birmingham (England); **ASSOCIATE PROFESSORS** David A. Crouse, Ph.D. 1974 Iowa, Alvin M. Earle, Ph.D. 1962 Colo., Ernest D. Prentice, Ph.D. 1976 Nebr., Jorge F. Rodriguez-Sierra, Ph.D. 1976 Rutgers, Warren W. Stinson, Ph.D. 1970 Okla., Gordon L. Todd III, Ph.D. 1972 Georgia.

In this department instruction is given in all phases of human morphology, including gross, microscopic, embryological and neurological anatomy.

Every effort is made to correlate the teaching with related basic and clinical fields in order to establish the relevance of morphological studies of problems of clinical medicine. The basic courses are established as core courses presenting fundamentals of universal importance. Opportunity is provided for additional study in depth through a selection of elective courses.

ANATOMY—04

510 Human Gross Anatomy I (4 s h cr) W. K. Metcalf (810G)

The course covers the dissection of the upper extremity, head and neck, and thorax.

511 Histology I (2 s h cr) Gardner (811G)

A study of cells and fundamental tissues with the light microscope. Ultrastructure is also emphasized. The microscopic structure of organ systems is introduced.

512 Neuroanatomy (2 s h cr) Earle (812G)

This course provides a study of the neuronal organization of the nervous system and how the inter-neuronal relationships serve as a basis to explain the function of the sensory and motor systems. The medical aspects of the structural and functional organization is demonstrated from clinical case material.

513 Human Embryology I (2 s h cr) Metcalf (813G)

A course specially designed to meet the needs of medical and paramedical students destined for clinical practice. Only those features of morphological embryology which are of clinical importance will be stressed. It includes embryogenesis, placentation and development of the nervous system.

520 Human Gross Anatomy II (2 s h cr) Stinson (820G) (Prerequisite 510)

A dissection of the abdomen and lower extremity. (A continuation of Human Gross Anatomy I).

521 Histology II (2 s h cr) Gardner (821G) (Prerequisite 511)

A continuation of Histology I and the microscopic study of organ systems.

523 Human Embryology II (1 s h cr) Metcalf (823G) (Prerequisite 513)

A continuation of Human Embryology I involving a study of the morphogenesis of organ systems.

19-540 Clinical Medicine/Living Anatomy (2 s h cr) Metcalf

An introduction to Physical Examination correlating dissecting room anatomy with the anatomy of the living.

19-542 Clinical Medicine/Living Anatomy (1 s h cr) Metcalf (Prerequisite 540)

A continuation of 540.

ELECTIVES —

NOTE: Prerequisite for all elective courses is by permission.

Special studies in Anatomy, Staff

Students are offered the opportunity to pursue studies in the various fields indicated in depth beyond that given in the basic courses. The work will consist of lectures, demonstrations, designed readings or laboratory work, depending on the nature of the material and the hours of registration. Full credit indicated can be achieved by re-registration in a course should a student elect to do so. Students should contact the Chairman of the Department for information relative to arranging for any of these courses.

530 Cross Sectional Anatomy — (2 s h cr) Second Semester (Stinson)

612 Electron Microscopy — (1-3 s h cr) Second Semester (Gardner)

616 Hematology — (1-3 s h cr) Second Semester (Sharp)

620 Embryology — (1-3 s h cr) Second Semester (N. Metcalf)

621 Teratology — (1-3 s h cr) Second Semester (Staff)

622 Neuroanatomy — (1-3 s h cr) Second Semester (Earle)

Applied Anatomy (1-4 s h cr) Stinson, Staff

Demonstrations, dissections, and lectures covering the gross, topographical and surgical aspects of human anatomy. Special emphasis will be placed on clinical applications.

626 Extremities

628 Thorax

629 Head and Neck

630 Topographic Anatomy

632 Pelvis and Perineum

690 Research in Anatomy, Staff

Prereq: Arrangement with departmental staff

Work can be carried out in any of the subdivisions of Anatomy.

732 Basic Science Clerkship (4 s h cr) Staff

ANESTHESIOLOGY

ASSOCIATE PROFESSOR Jerry D. Edelman (Acting Chairman), M.D. 1967 Nebr.; **PROFESSOR** Daniel W. Wingard, M.D. 1959 West. Res.; **ASSOCIATE PROFESSORS** James W. Chapin, M.D. 1972 Nebr., Denis J. Cuka, M.D. 1958 Creighton, Barbara J. Hurlbert, M.D. 1971 Nebr.; **ASSISTANT PROFESSORS** Roger Ganfield, M.D. 1973 Miami, Myrna C. Newland, M.D. 1964 Nebr., K. Reed Peters, M.D. 1975 Nebr.; **INSTRUCTORS** Betty F. Cutler, B.S. 1979 St. Mary's, William M. Gates, B.S. 1976 S.W. Texas State, Kenneth A. Scheer, C.R.N.A. 1969 Creighton; **VOLUNTEER FACULTY** Sreela G. Bannerjee, M.D., Kenneth P. Barjenbruch, M.D. 1965 Nebr., John L. Barmore, M.D. 1946 Nebr., David A. Baxter III, M.D. 1968 Nebr., Carl L. Boschult, M.D. 1966 Nebr., Russell C. Brauer, M.D. 1951 Nebr., Jim Campbell, M.D. 1972 Nebr., Peter C. Chilian, M.D. 1973 Colo., Frank Cole, M.D. 1934 Long Island, Eugene C. Fisher, M.D. 1961 Nebr., Muriel N. Frank, M.D. 1943 Nebr., Edward Gatz, M.D., Ph.D. 1968-1974 Nebr., John L. Gordon, M.D. 1959 Creighton, Clويد D. Green, M.D. 1946 Minn., Keay Hachiya, M.D. 1952 Nebr., Larry L. Hald, M.D. 1970 Nebr., G. Foster Larson, M.D. 1971 Colo., Kanchan L. Lodhia, M.D. 1969 Nebr., Pamela J. Masoud, M.D. 1975 Nebr., William C. Melcher, M.D. 1956 Nebr., Terence R. Newman, M.D. 1980 Belfast, J. Patrick O'Gara, M.D. 1962 Nebr., Michael T. Petersen, M.D. 1972 Creighton, Susan W. Ramig, M.D. 1979 Nebr., David E. Rosenberg, M.D. 1960 Nebr., Victor D. Scheer, B.S. 1975 Nebr., Robert C. Therien, M.D. 1943 Nebr., Gail E. Walling, M.D. 1961 Nebr., Dean C. Watland, M.D. 1954 Iowa.

The curriculum in anesthesiology aims to introduce the student to the broad aspects of anesthesiology, management of the comatose patient, and the problems of the perioperative period.

We hope to accomplish this by giving a better understanding of applied respiratory physiology, teaching respiratory and circulatory resuscitation, recognition and management of patients with acute and chronic respiratory problems. The student will have the opportunity to handle acute problems and make rapid decisions under supervision.

Courses of study involve familiarizing the student with some anesthetic agents and adjunct drugs, thus adding to this understanding of clinical pharmacology and making him aware of the problems involved in evaluating and preparing a patient for the physiologic and psychological changes associated with the perioperative period.

ANESTHESIA—06

19-642 (Interdepartmental) Clinical Medicine III

Seminar and laboratory course during second year designed to provide an understanding of some of the common causes and mechanisms of sudden death, and to learn skills in an effective approach to resuscitation and life support.

720 Anesthesia Clerkship

Periods Offered: 4 or 8 weeks

Student Limit: 9

Semester Hours: 4

Opportunity to gain an understanding of preoperative evaluation and preparation of patients for anesthesia and operation, clinical pharmacology of adjunctive drugs and anesthetic agents, respiratory physiology, principles of resuscitation, care of the unconscious patient, inhalation therapy, and approach to the control of pain.

725 Intensive Care Clerkship (Seniors only)

Periods Offered: Each 4 weeks

Student Limit: 1

Semester Hours: 4

Opportunity to gain an understanding of an experience in the application of life support measures for patients requiring ventilatory and circulatory assistance outside the operating room.

760 Off Campus Anesthesiology

Periods Offered: Each 4-8 weeks

Semester Hours: 4

Arrangements in other medical centers can be made for extra-ordinary learning experiences not readily available within our facilities. The Department of Anesthesia faculty will be pleased to work with the student interested in an extramural clerkship when credit for this clerkship is desired.

772 Anesthesiology Residency

A three- to four-year educational program with gradually increasing responsibility. The trainee develops skills and knowledge in the pharmacology of anesthetic agents, the administration of regional and general anesthesia, and the preoperative and postoperative care of patients. The resident also receives training in intensive care and inhalation therapy. In keeping with the career goals of the trainee, special programs in subspecialty areas and research methods are available.

799 Research In Anesthesia (Limit by arrangement)

Opportunity to select an area of interest from the aims of anesthesia clerkship for more intense study. Definition of problems and program of learning to be decided upon discussion with faculty.

ANESTHESIA GENERAL EXERCISES—

Anesthesia Case Reports (Every Wednesday—7-8 a.m.)

Anesthesia Residents Seminars (Every Thursday—7-8 a.m.)

Preoperative Conference (Monday, Tuesday, Friday—7-7:30 a.m. Wednesday, Thursday—8-8:30 a.m.)

BIOCHEMISTRY

PROFESSORS William R. Ruegamer (Chairman), Ph.D. 1948 Wisc., Anthony J. Barak, Ph.D. 1953 Mo., Michael J. Carver, Ph.D. 1952 Mo., John H. Copenhaver, Ph.D. 1963 Kansas, Denham Harman, Ph.D. 1943 Calif., M.D. 1954 Stanford, Robert E. Hodges, M.D. 1947 Iowa, Robert F. Ramaley, Ph.D. 1964 Minn., Wayne L. Ryan, Ph.D. 1953 Mo., Arnold E. Schaefer, Ph.D. 1947 Wisc., Richard B. Tobin, M.D. 1949 Rochester; **ASSOCIATE PROFESSORS** Ercole Cavallieri, D.Sc. 1962 Milan (Italy), David E. Cook, Ph.D. 1970 Texas, Gary L. Curtis, Ph.D. 1971 Nebr., Dale P. J. Goldsmith, Ph.D. (Emeritus) 1942 Penn. State, Margaret L. Heidrick, Ph.D. 1970 Nebr., John F. Hofert, Ph.D. 1963 Wisc., John A. Johnson, Ph.D. 1971 Minn., Louis Lippiello, Ph.D. 1973 Cornell, Theodore A. Mahowald, Ph.D. 1957 St. Louis, Sidney S. Mirvish, Ph.D. 1955 Cambridge, C. Kirk Phares, Ph.D. 1971 Louisiana State, Jack L. Smith, Ph.D. 1962 Cincinnati, Dean J. Tuma, Ph.D. 1973 Nebr.; **ASSISTANT PROFESSORS** V. K. Murthy, Ph.D. 1964 Bombay, E. Gayle Schneider, Ph.D. 1974 Harvard, Charles M. Siegfried, Ph.D. 1972 St. Louis, David J. Volsky, Ph.D. 1979 Jerusalem; **INSTRUCTOR:** Terrence M. Donohue, Ph.D. 1978 Nebr..

In addition to a curriculum of required and elective courses for medical students, the department also offers (1) graduate-level courses (800-999 series) each semester to graduate students working for a M.S. or Ph.D. degree in Biochemistry or related disciplines and (2) courses in basic biochemistry that are tailored to fit the needs of students in the Physical Therapy Education Program (305), the Physician Assistant Education Program (308) and the College of Nursing (315).

BIOCHEMISTRY—08

305 Physical Therapy Education Biochemistry (1 s h cr, F) Mahowald

This is a survey course in which the basic concepts of protein, carbohydrate and lipid metabolism are presented. The mechanisms for energy production and metabolic control are also studied from a conceptual viewpoint.

308 Physician Assistant Biochemistry (6 s h cr, F) Ruegamer and Staff

This course covers the fundamental aspects of cellular biochemistry. The major areas of carbohydrate, protein, lipid, amino acid and nucleic acid chemistry and metabolism are covered. In addition, protein synthesis and genetic control, biological oxidation and enzyme chemistry and kinetics are studied. Nutrition and biochemical endocrinology are also surveyed.

- 315 Biochemistry** (3 s h cr, F) Cook and Heidrick
A three-semester course offered primarily for students in the College of Nursing covering the fundamentals of intracellular environment, enzymes, energy, metabolism, (carbohydrate, lipid, nucleic acid, amino acid, and protein), transport, regulation and special selected topics including the biochemical aspects of parenteral feeding, detoxification, blood, immunology and connective tissue.
- 315 Biochemistry** (3 s h cr, F) Ruegamer
This is a three-semester course offered to nursing students on the Lincoln Campus and at other off-campus locations. It covers essentially the same basic subject areas as those listed under 315 except that the lectures are presented on 32 fifty-minute video tapes. A syllabus which was especially written for use with the tapes is available.
- 510 Biochemistry I** (6 s h graduate cr, F) Ruegamer and Staff (810G)
This course includes all the fundamental aspects of cellular biochemistry through basic intermediary metabolism. The chemistry and metabolism of carbohydrate, protein, lipid, amino acid and nucleic acid are covered. In addition, protein synthesis and genetic control, radioisotope theory and application, biological oxidations, and enzyme chemistry and kinetics are studied. The metabolism of special tissues such as connective tissue, blood, and tumors are also studied.
- 511 Biochemistry II** (2 s h graduate cr, S) Ruegamer and Staff (811G)
Prerequisite: 510/810 or its equivalent.
Approximately one-half of the course is devoted to a study of the biochemistry of the endocrine system. The remaining half covers the important biochemical aspects of nutrition.
- 596 Research Projects** (credit and time by arrangement) Staff
The student may choose from a variety of research projects dictated by individual faculty members. The student helps to plan the project, learns to perform the techniques and methods needed, collects the data, and helps to summarize and interpret the results.
- Series of Advanced Topics in Biochemistry** (3 s h cr per subdivision except Special Topics, see below).
The subdivisions below constitute a comprehensive and advanced coverage of the chemistry and intermediary metabolism involved in the major areas of biochemistry.
- 720 Enzymes**—Mahowald and Cook (920G)
722 Carbohydrates—Hofert and Staff (922G)
724 Proteins—Ryan and Staff (924G)
726 Nucleic Acids—Staff (926G)
728 Endocrine and Cellular Regulation—Heidrick and Phares (928G)
730 Lipids and Membranes—Schneider and Siegfried (930G)
740 Special Topics (1-3 s h graduate credit) Staff

FAMILY PRACTICE

ASSOCIATE PROFESSOR Robert L. Bass (Chairman), M.D. 1956 Nebr., **PROFESSORS** Margaret E. Faithe, M.D. 1954 Western Reserve, John C. Finegan, M.D. 1953 Nebr.; **ASSOCIATE PROFESSORS** Jerry L. Authier, Ph.D. 1973 Portland, Ralph L. Cassel, M.D. 1944 Nebr., Kashinath D. Patil, Ph.D. 1971 Wash.; **ASSISTANT PROFESSORS** Charles M. Bressman, M.D. 1955 Nebr., Stuart D. Campbell, M.D. 1943 Nebr., Daniel E. Halm, M.D. 1975 Nebr., Theodore H. Koefoot, Jr., M.D. 1943 Nebr., Donald Matthews, M.D. 1953 Nebr., Paul Paulman, M.D. 1977 Nebr., C. Lee Retelsdorf, M.D. 1955 Nebr., Steven Sherrets, Ph.D. 1980 Nebr., Michael Sitorius, M.D. 1977 Nebr., Valgene Valgora, P.A. 1972 Duke, M.S. 1975 Wichita State, Hiram R. Walker, M.D. 1954 Nebr., Douglas Wheatley, M.D. 1978 Mo., Clarence Zimmer, M.D. 1947 Nebr.; **CLINICAL PROFESSOR** Michael J. Haller, M.D. 1961 Creighton; **CLINICAL ASSOCIATES** Ivan G. Abdouch, M.D. 1977 Nebr., Charles Barton, M.D. 1975 Nebr., Rodney Czaplewski, M.D. 1974 Nebr., Donna Nelson, M.D. 1978 Nebr., MyChu Tran, M.D. 1972 Saigon, Gary Vandeweghe, M.D. 1975 Nebr., Larry Wilson, M.D. 1975 Nebr., Robert M. Wood, D.D.S. 1951 Chicago, Ill.; **CLINICAL INSTRUCTOR** Virginia L. Higgins M.S.W. 1975 Nebr.; **INSTRUCTORS** Mary Ann Kluemper, M.S.P.H. 1977 Mo., Jacqueline Krier, M.S.W. 1978 Nebr. at Omaha, Gerald Pierce, A.C.S.W. 1978 Nebr., Linda Wetzler, R.D. 1971 Mich.; **ADJUNCT ASSISTANT INSTRUCTOR** Cedric W. Prange, M.B.A. 1969 Nebr.; **SENIOR CONSULTANTS** Allen B. Anderson, M.D. 1921 Nebr., Walter Benthack, M.D. 1924 Nebr., George A. Haslam, M.D. 1924 Penn., Clifford D. Howard, M.D. 1934 Nebr.; **CLINICAL ASSOCIATES** Allen Alderman, M.D. 1954 Nebr., David A. Allerheiligen, M.D. 1975 Nebr., Robert C. Anderson, M.D. 1957 Nebr., K. Don Arrasmith, M.D. 1961 Nebr., Charles, F. Ashby, M.D. 1942 Nebr., Kenneth C. Bagby, M.D. 1960 Nebr., James E.

Bare, M.D. 1962 Nebr., Robert B. Barnwell, M.D. 1959 Nebr., Craig D. Bartruff, M.D. 1973 Nebr., John L. Batty, M.D. 1938 Nebr., Melvin D. Bechtel, M.D. 1962 Nebr., William F. Becker, M.D. 1962 Nebr., James Bell, M.D. 1947 Nebr., Ronald C. Bell, M.D. 1965 Nebr., Russell E. Beran, M.D. 1963 Minn., Timothy J. Biga, M.D. 1973 Nebr., Richard A. Blatny, M.D. 1969 Nebr., Arden H. Bonebrake, M.D. 1947 Iowa, Norval L. Books, M.D. 1973 Nebr., Paul Bottom, M.D. 1962 Nebr., Richard Brouillette, M.D. 1965 Nebr., Robert E. Butler, M.D. 1952 Nebr., John B. Byrd, M.D. 1969 Nebr., James G. Carlson, M.D. 1959 Nebr., James S. Carson, M.D. 1959 Nebr., Kaye B. Carstens, M.D. 1971 Nebr., Frederick D. Catlett, M.D. 1973 Nebr., Melville L. Chaloupka, M.D. 1947 Nebr., Richard D. Clark, M.D. 1969 Nebr., Gary L. Conell, M.D. 1971 Nebr., Carl J. Corneliuss, M.D. 1951 Creighton, Ronald Craig, M.D. 1970 Nebr., James D. Crew, M.D. 1976 Nebr., Calvin Cutright, M.D. 1966 Nebr., Clarence J. Davis, M.D. 1956 Tenn., Leon Davis, M.D. 1973 W. Vir., Earl J. Dean, M.D. 1954 Nebr., David Demuth, M.D. 1975 Nebr., Daniel H. Dietrich, M.D. 1966 Nebr., William A. Doering, M.D. 1949 Nebr., William B. Eaton, M.D. 1956 Nebr., William B. Eifeldt, M.D. 1964 Nebr., Stuart P. Embury, M.D. 1969 Nebr., Gary R. Ensz, M.D. 1976 Wash., Wendell L. Fairbanks, M.D. 1963 Nebr., Charles E. Fellows, M.D. 1962 Nebr., David H. Filipi, M.D. 1974 Nebr., John Finkner, M.D. 1952 Nebr., Richard D. Fitch, M.D. 1969 Nebr., John M. Ford, M.D. 1968 Creighton, Bruce D. Forney, M.D. 1972 Nebr., Richard O. Forsman, M.D. 1968 Nebr., Gordon D. Francis, M.D. 1955 Nebr., Ivan M. French, M.D. 1943 Nebr., Walter Gardner, M.D. 1975 Nebr., Donald M. Gentry, M.D. 1968 Nebr., Harold E. Gentry, M.D. 1952 Nebr., Richard D. Gentry, M.D. 1957 Nebr., A. Dean Gilg, M.D. 1961 Nebr., R. David Glover, M.D. 1967 Nebr., Leslie I. Grace, Jr., M.D. 1954 Nebr., Lee B. Grant, M.D. 1945 Louisville, Harris B. Graves, M.D. 1952 Nebr., Klemens E. Gustafson, M.D. 1966 Nebr., Michael J. Hanich, M.D. 1974 Nebr., John E. Hansen, M.D. 1955 Nebr., George A. Harris, M.D. 1956 Nebr., Walter C. Harvey, M.D. 1947 Nebr., James P. Hayes, M.D. 1957 Creighton, Gary Heaton, M.D. 1975 Nebr., William G. Heusel, M.D. 1961 Nebr., Jeffrey Hill, M.D. 1977 Nebr., Marvin E. Holislaw, M.D. 1966 Nebr., Douglas L. Holtmeier, M.D. 1974 Nebr., Edward Holyoke, M.D. 1970 Nebr., Steven Husen, M.D. 1975 Nebr., Joel F. Hutchins, M.D. 1970 Nebr., Richard E. Jackson, M.D. 1969 Nebr., Loren H. Jacobson, M.D. 1967 Nebr., Mark E. Janulewicz, M.D. 1975 Nebr., David E. Jenny, M.D. 1968 Nebr., Gordon O. Johnson, M.S. 1958 Nebr., Harold G. Johnson, M.D. 1965 Nebr., Kenneth L. Johnson, M.D. 1959 Nebr., Richard N. Johnson, M.D. 1950 Nebr., Mark P. Jones, M.D. 1977 Nebr., Harold W. Keenan, M.D. 1965 Nebr., John R. Kirchner, M.D. 1961 Nebr., Duane G. Koenig, M.D. 1966 Nebr., Robert E. Kopp, M.D. 1945 Wayne, Larry Lamberty, M.D. 1976 Nebr., Allan C. Landers, M.D. 1958 Nebr., Alan Langvardt, M.D. 1972 Nebr., Donald J. Larson, M.D. 1962 Nebr., Dwight L. Larson, M.D. 1953 Nebr., Theodore J. Lemke, M.D. 1952 Nebr., James S. Long, M.D. 1954 Nebr., Darroll J. Loschen, M.D. 1963 Nebr., Gerald W. Luckey, M.D. 1973 Nebr., James E. Mabie, M.D. 1963 Nebr., Paul R. Madison, M.D. 1972 Nebr., Thomas G. Magruder III, M.D. 1956 Nebr., Ben O. Martin, M.D. 1960 Nebr., Paul D. Marx, M.D. 1937 Nebr., Roger D. Mason, M.D. 1952 Nebr., Roger P. Massie, M.D. 1970 Nebr., Maurice D. Mathews, M.D. 1959 Nebr., Michael McCoy, M.D. 1973 Nebr., Dean A. McGee, M.D. 1946 Nebr., David C. McMaster, M.D. 1972 Nebr., Charles E. McMinn, M.D. 1970 Nebr., Clyde A. Medler, M.D. 1952 Nebr., Daniel N. Mergens, M.D. 1953 Creighton, Kent Meyers, M.D. 1975 Utah, Otis W. Miller, M.D. 1951 Nebr., Warren R. Miller, M.D. 1952 Nebr., James E. Monaghan, M.D. 1953 Colo., Donald H. Morgan, M.D. 1952 Nebr., Stanley T. Mountford, M.D. 1961 Nebr., Charles G. Muffyly, M.D. 1951 Nebr., Stanley F. Nability, M.D. 1949 Jefferson, Delwyn J. Nagengast, M.D. 1956 Creighton, James D. Nelson, M.D. 1974 Nebr., Lyle W. Nilson, M.D. 1957 Nebr., Harold Nordlund, M.D. 1955 Nebr., Raymond H. Olson, M.D. 1956 Nebr., James L. Omel, M.D. 1974 Nebr., Robert G. Pelley, M.D. 1961 Nebr., Gary D. Penner, M.D. 1974 Nebr., Kenneth Peters, M.D. 1970 Nebr., Ronald I. Peterson, M.D. 1959 Nebr., George E. Place, M.D. 1942 Nebr., James M. Plate, M.D. 1974 Nebr., Leslie C. Potts, M.D. 1954 Nebr., Donald Prescher, M.D. 1959 Nebr., Donald F. Prince, M.D. 1957 Nebr., Robert E. Quick, M.D. 1958 Nebr., Henry J. Quiring, M.D. 1957 Nebr., Gary Rademacher, M.D. 1972 Nebr., James E. Ramsay, M.D. 1946 Nebr., Richard A. Raymond, M.D. 1972 Nebr., Dwight F. Rickard, M.D. 1963 Nebr., Lawrence Rudolph, M.D. 1961 Nebr., Harry Salyards, M.D. 1974 Nebr., Phyllis Salyards, M.D. 1974 Nebr., Myron E. Samuelson, M.D. 1946 Nebr., Paul M. Scott, M.D. 1942 Nebr., Steven A. Senseney, M.D. 1975 Creighton, Irving Shapiro, M.D. 1956 Nebr., Ronald J. Sheppard, M.D. 1971 New Jersey, Floyd H. Shiffermiller, M.D. 1950 Nebr., Bruce G. Shopp, M.D. 1954 Nebr., Keith W. Shuey, M.D. 1964 Nebr., Harvey N. Sievers, M.D. 1969 Nebr., Rudolph F. Sievers, M.D., Ph.D. 1939 Nebr., Berl W. Spencer, M.D. 1960 Nebr., James M. Steier, M.D. 1973 Nebr., Lowell A. Stratton, M.D. 1971 Nebr., Robert M. Stryker, M.D. 1958 Nebr., George Surber, M.D. 1972 Nebr., Harold W. Thaut, M.D. 1972 Nebr., Victor J. Thoendel, M.D. 1970 Nebr., Steven R. Thomas, M.D. 1970 Nebr., William Thompson, M.D. 1976 Nebr., Richard L. Tollefson, M.D. 1953 Nebr., Robert G. Travnick, M.D. 1965 Nebr., Kenneth R. Treptow, M.D. 1953 Nebr., Robert Tuma, M.D. 1974 Nebr., Robert E. Underriner, M.D. 1951 Creighton, Milton G. Waldbaum, M.D. 1956 Nebr., James H. Walston, M.D. 1949 Northwestern, Carl A. Walvoord, M.D. 1944 Nebr., David Weeks, M.D. 1958 Nebr., Robert C. Weldon, M.D. 1959 Nebr., Bernard F. Wendt, M.D. 1949 Nebr., Robert I. Westbrook, M.D. 1958 Louisiana, Michael Westcott, M.D. 1975 Nebr., Wayne K. Weston, M.D. 1965 Nebr., John C. Wilcox, M.D. 1972 Nebr., Wesley G. Wilhelm, M.D. 1964 Creighton, Donald E. Wilkinson, M.D.

1956 Nebr.. Rex W. Wilson, M.D. 1943 Mich., Orlyn H. Wingert, M.D. 1973 Nebr., William Yates, M.D. 1977 Nebr., Wayne L. Zlomke, M.D. 1956 Nebr..

The objective of this department is to prepare the student to carry out their function as a leader and coordinator of the health care team as they provide access to the health system and assumes continuing responsibility for management of the student's patients over a long period of time. More specifically, the program is designed to do the following:

1. Provide a stimulating experience in a model of family practice which will infuse the student with a philosophy of family practice and an understanding of the role of the family physician.
2. Help the student acquire excellent skills in diagnosis, treatment, and management of patients and technical procedures appropriate for family practice.
3. Help the student acquire the knowledge and appropriate depth in various fields of medicine encompassed by family practice.
4. Provide opportunity for the student to develop mature clinical judgment and appreciation of the limitation of his or her competence.
5. Provide understanding of research and methodology in problems relating to the delivery of health services.
6. Encourage student to develop life-long habits of learning and an understanding of the role of continuing education in maintaining professional excellence.

FAMILY PRACTICE—18

512 Principles of Primary Care (2 s h cr)

This course introduces the student to the following basic components of primary care: Importance of family interacting in treatment, health care teams, patient participation, prevention, a consultant, and use of community resources.

604 Epidemiology (1 s hr cr), Patil

Introduction to statistical analysis, community health, occupational and environmental health, and economics of health care.

616 Clinical Continuity Experience (1 s h cr), Halm

A required course for second year students. This course is designed to allow students to observe a small number of patients over several months time.

705 Community Preceptorship (Required)

Periods Offered: Each 8 weeks

Student Limit: None

Semester Hours: 8

Prerequisite: Completion of three basic clerkships

This is a clerkship with a solo, dual or group practice in which the student is afforded the opportunity of observing a local community and its interrelationships with the practice of medicine in that community.

720 Family Health Center—University Hospital Clerkship, Halm and Staff

Periods Offered: Each 4 weeks except for the month of July

Student Limit: 2

Semester Hours: 4

A clinical experience in the Family Practice Clinic of the University Hospital involving physical examinations and treatment of acute illness and trauma.

722 Family Health Center—South Omaha Clerkship, Cassel

Periods Offered: Each 4 weeks except for the month of July

Student Limit: 1

Semester Hours: 4

A clinical experience at the University satellite clinic located at 5211 South 31st Street. Covers all clinical areas. Full-time and volunteer faculty.

726 Family Practice CLK—Immanuel Medical Center

Periods Offered: Each 4 weeks

Student Limit: 1 (senior status)

Semester Hours: 6

A clinical experience, both inpatient and outpatient, on the Family Practice service. Average monthly census of patients per volunteer faculty member is 25. For further information, contact Dr. Ronald Bell (453-9900).

727 Inpatient Service (UNMC)

Periods Offered: Each 4 weeks except for the month of July

Student Limit: 1-2 (3rd or 4th year students only)

Semester Hours: 4

Students are given externship responsibilities commensurate with experience under the direct supervision of the Family Practice inpatient resident, chief resident and inpatient

attending physician. The inpatient service admits patients from the three Family Practice clinics, from the ER or Family Practice referral patients from outstate Nebraska.

728 Family Practice Clerkship—Nebraska Methodist Hospital

Periods Offered: Each 4 weeks (By arrangement)

Student Limit: 1

Semester Hours: 4

A clinical experience, both inpatient and outpatient, on the Family Practice service. Average monthly census of patients per volunteer faculty is 25. Particularly recommended for early clinical experience. This course will not fulfill the outpatient medical requirement.

730 Family Practice Clerkship—Lincoln General Hospital

Periods Offered: Each 4 weeks

Student Limit: 2

Semester Hours: 4

A clinical experience, both inpatient and outpatient, on the Family Practice service. Average monthly census of patients per volunteer faculty member is 25.

732 Community Emergency Room—Methodist Hospital

Periods Offered: By arrangement only

Student Limit: 1 (senior status)

Semester Hours: 4

This is an experience at the Methodist Hospital and will show the operation of a community emergency room in a large community by full-time staff who are also volunteer faculty of the College of Medicine.

733 Community Emergency Room—Lutheran Hospital

Periods Offered: Each 4 weeks

Student Limit: 1

Semester Hours: 4

Same as 732 except for location.

734 Community Emergency Room—Immanuel Hospital

Periods Offered: Each 4 weeks

Student Limit: 2

Semester Hours: 4

Same as 732 except for location.

735 Community Emergency Room—Lincoln General Hospital

Periods Offered: Each 4 weeks

Student Limit: 1 (senior status)

Semester Hours: 4

Same as 732 except for location.

740 Evaluation of Health Care, Staff

Periods Offered: Each 4 weeks, or each semester when requested by 5 students

Student Limit: 12

Semester Hours: To be arranged

This course will consider a variety of methods to evaluate health care, along with the reasons that evaluation is becoming more critical. Didactic sessions covering patient care will be intermingled with laboratory exercises giving students the opportunity to actually review selected medical records.

750 Computer Aided Instruction (CAI), Staff

Periods Offered: To be arranged

Student Limit: 10

Semester Hours: 2

This elective will briefly orient the student to the use of a computer terminal, to the theories behind CAI, and to the use of the computer in the student's own education and future practice. With the use of the educational computer programs of Ohio State University and Massachusetts General Hospital (Boston), the student will experiment with various forms of CAI. With the experience gained during this course, it is hoped that the student will continue to use the computer terminals of UNMC during the rest of his/her medical education. This elective will utilize free time periods and will not conflict with regularly scheduled classes.

760 Private Practice Office Clerkship

Periods Offered: Each 4 weeks

Student Limit: None

Semester Hours: 4

This clerkship offers a chance to participate in and observe private practice in family physicians' offices in Omaha.

761 Family Practice Off—Campus Elective

Periods Offered: Each 4 weeks

Student Limit: None

Semester Hours: 4

This clerkship offers a chance to participate in and observe an off-campus elective in an out-of-state locale of the student's choice.

762 Migratory Health

Periods Offered: May, June, July

Student Limit: 1

Semester Hours: 4

The student will participate in the Nebraska Migrant Health Project in Gering, Nebraska as a member of the health team in the Family Practice Clinics and other activities.

763 Off-Campus Elective in Community Health, Patil

Periods Offered: Each 4 weeks

Student Limit: 3 (by arrangement)

Semester Hours: 1-6 (by arrangement)

This elective is to enable students to obtain credit for educational experiences related to community health which are off-campus. Students traveling in foreign countries who are interested in studying other health work, occupational medicine, or medical computing are those for whom it is intended. There is also the capability to secure experience in health maintenance through injury and environment control, health fitness testing, and athletic medicine.

766 Community Health Care (MECO)

Periods Offered: Each 4 or 8 weeks

Student Limit: By arrangement

Semester Hours: None

Medical Education Community Orientation Project is sponsored and arranged by the American Medical Student Association for pre-clinical medical students.

772 Family Practice Core Residency

This full-time three-year program of clinical assignments plus seminars and conferences has been designed to prepare the physician to meet the demand for a single, competent primary physician for the entire family. The program is flexible enough to allow the physician to elect assignments based on his interest and needs. Specific assignments include one-half day per week in each of the three Family Health Centers (University Hospital, Dodge Street and South Omaha) and a four-month experience in one of the outstate Nebraska community hospitals affiliated with the Medical Center.

774 Family Practice Fellowship

During this year long advanced program, the physician will continue his residency training on a half-time basis. He will also assume half-time responsibilities in the department's teaching activities with faculty status of instructor. Open to physicians who have completed a three-year residency in an accredited program or are diplomates of the American Board.

799 Research Project in Family Practice

Periods Offered: Each 4 weeks

Student Limit: By permission

Semester Hours: 4

The student may select a project in which they are particularly interested and with the approval of the faculty, may pursue this project intensively for four weeks. Such projects might be concerning with the delivery of health care or with the value of screening procedures. Faculty advice will be given, and the research project will be structured.

INTERDEPARTMENTAL

INTERDEPARTMENTAL—19

518 Human Genetics, Sanger, Buehler (1 s h cr)

Current principles and concepts of human genetics are discussed. Examples of gene and chromosome disorders, their mechanisms, and possible etiologies are presented. Stress is placed upon an integration of both basic science and clinical points of view. Procedures of genetic counseling are discussed throughout.

540 Clinical Medicine I—Living Anatomy (2 s h cr, 1st semester)

Introduction to Physical Diagnosis, segmentally correlated with Gross Anatomy and supplemented with a weekly Clinical Pathologic lecture.

542 Clinical Medicine II—Living Anatomy (2 s h cr, 2nd semester)

See 540.

- 620 Perspectives in Aging** (1 s h cr, 1st semester) Grisson, Staff
An interdisciplinary course focusing on the application of medical, social, cultural and humanistic principles to the care of older adults. Instruction includes small group discussions, interviews with older persons and lectures.
- 642 Clinical Medicine III—Basic Physical Diagnosis** (1st semester, 2nd year)
Basic Physical Diagnosis instruction and practice. Lecture correlations, small group discussion and individual practice and assessment. The end point is thorough and reliable performance of a normal physical examination with accurate description of differences from that norm.
- 644 Clinical Medicine IV—Introduction to Clinical Experience** (2nd semester, 2nd year)
Life Support Practicum and continued development of physical examination skills and experience from Clinical Medicine III.
- 646 Clinical Medicine V—Preclinical Experience in Clinical Medicine.**

INTERNAL MEDICINE

PROFESSORS Michael F. Sorrell (Chairman), M.D. 1959 Nebr., Robert E. Ecklund (Vice Chairman), M.D. 1957 Ill., Alastair M. Connell, M.D. 1969 Glasgow, Richard B. Davis, M.D. 1953 Iowa, Ph.D. 1964 Minn., John F. Foley, M.D. 1955 Buffalo, Ph.D. 1963 Minn., Denham Harman, M.D. 1954 Stanford, Ph.D. 1943 Calif., Robert E. Hodges, M.D. 1947 Iowa, Irving Kass, M.D. 1944 Kansas, Henry J. Lehnhoff, Jr., M.D. 1937 Northwestern, Henry M. Lemon, M.D. 1940 Harvard, George W. Loomis, M.D. 1947 Nebr., John J. Matoole, Jr., M.D. 1957 Creighton, Frederick F. Paustian, M.D. 1953 Nebr., Joseph C. Shipp, M.D. 1952 Columbia, Daniel B. Stone, M.D. 1948 London, Neal A. Vanselow, M.D. 1958 Mich., Frederick Ware, M.D., Ph.D. 1956 Nebr.; **ASSOCIATE PROFESSORS** James O. Armitage (Vice Chairman) M.D. 1973 Nebr., Louis W. Burgher, M.D. 1970 Nebr., David A. Burnett, M.D. 1972 Nebr., John C. Davis III, M.D. 1957 Nebr., John R. Feagler, M.D. 1967 Wash., Thomas F. Gallagher, M.D. 1962 Chicago, Margaret A. Kessinger, M.D. 1967 W. Vir., Lynell W. Klassen, M.D. 1973 Kansas; Thomas Knight, M.D. 1972 Nebr., David McCall, M.D. 1964 Ph.D. 1971 Glasgow, LeeRoy Meyer, M.D. 1961 Nebr., Dean J. Tuma, Ph.D. 1973 Nebr.; **ASSISTANT PROFESSORS** Bryan B. Beck M.D. 1975 Texas, William C. Bell, Ph.D. 1975 Pitts., James C. Buell, M.D. 1966 Nebr., James Campbell, M.D. 1976 Nebr., Patrick Elwood, M.D. 1975 Nebr., William F. Gust, M.D. 1967 Nebr., Lon W. Keim, M.D. 1970 Vir., Nancy Loeb, M.D. 1979 Iowa, Kenneth J. Maxwell, M.D. 1970 Nebr., Merle T. McAlevy, M.D. 1971 Nebr., David Meyers, M.D. 1976 Iowa, Gerald F. Moore, M.D. 1971 Nebr., V. K. Murthy, Ph.D. 1964 Bombay, David L. Olson, M.D. 1972 Nebr., Joseph P. Ornato, M.D. 1971 Boston, Richard Osterholm, M.D. 1973 Nebr., Jane F. Potter, M.D. 1977 Creighton, Jerry A. Reed, M.D. 1963 Nebr., Richard Robbins, M.D. 1976 Nebr., Daniel F. Schafer, M.D. 1976 Nebr., Thomas Sears, M.D. 1975 Missouri, Philip W. Smith, M.D. 1972 Chicago, Stephen Smith, M.D. 1974 Kansas, Michael J. Stotts, CAS No. Illinois 1968, Thomas C. Tinstman, M.D. 1970 Nebr., Laurence A. Zacharia, M.D. 1963 Harvard; **INSTRUCTORS:** Terrence M. Donohue, Ph.D. 1978 Nebr., Gary E. Ross M.S. 1973 Nebr.; **VOLUNTEER FACULTY** Michael J. Adams, M.D. 1975 Nebr., William D. Angle, M.D. 1948 Harvard, David L. Bacon, M.D. 1962 Nebr., Anthony J. Barak, Ph.D. 1953 Mo., Steven T. Bailey, M.D. 1976 Nebr., John J. Cannella, M.D. 1972 Nebr., Christopher C. Caudill, M.D. 1967 Ohio State, Ward A. Chambers, M.D. 1973 Nebr., Richard E. Collins, M.D. 1968 Nebr., David R. Colan, M.D. 1959 Creighton, John J. Connolly, M.D. 1959 Creighton, Donald J. Darst, M.D. 1977, Nebr., Stanley L. Davis, M.D. 1963 Nebr., Timothy B. Denzler, M.D. 1971 Nebr., John L. Dewey, M.D. 1949 Creighton, Roger W. Dilley, M.D. 1964 Nebr., Ronald A. Draur, M.D. 1965 Loyola, David R. Dyke, M.D. 1966 Nebr., Phyllis Eliot, B.S. 1953 Wisc., Alan D. Forker, M.D. 1964 Kansas, Joseph R. Gard, M.D. 1970 Iowa, Eelco D. Gerlings, M.D. 1963, Ph.D. 1966 Holland, William E. Graham, M.D. 1945 Nebr., Charles A. Hamilton, M.D. 1953 Harvard, Ph.D. 1958 Nebr., Donald L. Hammes, M.D. 1958 Nebr., Herbert A. Hartman, Jr., M.D. 1973 Kansas, Donald A. Harvey, M.D. 1957 Nebr., Ph.D. 1953 Ohio, Bruce W. Henricks, M.D. 1975 Nebr., John Hoising, M.D. 1967 Nebr., Robert C. Holcombe, M.D. 1954 Maryland, Richard A. Hranac, M.D. 1973 Nebr., Gordon J. Hrnicek, M.D. 1972 Nebr., Theodore F. Hubbard, M.D. 1946 Nebr., Donald R. Jackson, M.D. 1945 Nebr., Michael B. Jones, M.D. 1975 Nebr., Robert E. Joranson, M.D. 1944 Chicago, James E. Kelsey, M.D. 1949 Minn., James L. Knott, M.D. 1953 Creighton, Edward Langdon, M.D. 1946 Nebr., Leonard R. Lee, M.D. 1947 Chicago, Jack L. Lewis, M.D. 1960 Nebr., Thomas P. K. Lim, M.D. 1948 Sev. Union, Ph.D. 1953 Northwestern, Robert S. Long, M.D. 1940 Nebr., James A. Mailliard, M.D. 1952 Creighton, Jack Mathews, M.D. 1958 Northwestern, Richard R. Miles, M.D. 1969 Harvard, Vincent F. Miscia, M.D. 1964 New Jersey, Paul K. Mooring, M.D. 1957 Columbia, James R. Morgan, M.D. 1969 Nebr., Haskell Morris, M.D. 1943 Nebr., Robert B. Muffly, M.D. 1952 Nebr., Gunter M. Nashelsky, M.D. 1953 Colo., Karl F. Niehaus, M.D. 1953 Nebr., Dan E. Nye, M.D. 1940 Nebr., Leo E. O'Brien, M.D. 1965 Nebr., Russell W. Palmer, Ph.D. 1966 Iowa, Jeffrey A. Passer, M.D. 1972 Nebr., Edward E. Pease, M.D. 1968 Iliff (Denver), Maurice L. Pepper, M.D. 1936 Nebr., David D. Policky, M.D. 1970 Nebr., Peyton T. Pratt, M.D. 1944 Nebr., Merton A. Quaife, M.D. 1957 Nebr., Reed W. Rings, D.V.M. 1957 Mo., Charles M. Root, M.D. 1944 Nebr., Robert Rosenlof, M.D. 1951 Nebr., John Sage, M.D.

1956 Nebr., Arnold E. Schaefer, Ph.D. 1947 Wisc., Steven A. Schwid, M.D. 1960 Nebr., Carol L. Scott, M.D. 1968 Nebr., Monte M. Scott, M.D. 1957 Nebr., Robert H. Settles, M.D. 1962 Nebr., William A. Shiffermiller, M.D. 1975 Nebr., Robert D. Sidner, M.D. 1964 Nebr., Lee G. Simmons, D.V.M. 1963 Okl. State, Robert A. Slabaugh, M.D. 1951 Nebr., Arthur L. Smith, M.D. 1940 Rush, Jack L. Smith, Ph.D. 1962 Cincinnati, Stephen B. Smith, M.D. 1974 Kansas, Louis H. Stekol, M.D. 1976 Chicago, Jack M. Stemper, M.D. 1944 Nebr., Joseph E. Stitche, M.D. 1955 Maryland, Robert A. Strabuckner, M.D. 1960, Ph.D. 1964 Nebr., Bowen E. Taylor, M.D. 1943 Nebr., Wesley G. Tomhave, M.D. 1949 Minn., Jon A. Vanderhoof, M.D. 1972 Nebr., Joseph Verdirame, M.D. 1975 Un. of New York, Kenneth A. Voegel, M.D. 1969 Nebr., William M. Vosik, M.D. 1967 Nebr., John Wagoner, M.D. 1978 Nebr., Timothy O. Wahl, M.D. 1974 Nebr., Donald E. Waltemath, M.D. 1963 Nebr., Vernon G. Ward, M.D. 1954 Nebr., Samuel Watson, M.D. 1966 Nebr., Arthur L. Weaver, M.D. 1962 Northwestern, Walt F. Weaver, M.D. 1956 West. Res., Steven J. Wees, M.D. 1976 Wayne State, John B. Westmore, M.D. 1959 Nebr., Charles S. Wilson, M.D. 1964 Northwestern, Otto A. Wurl, M.D. 1939 Northwestern, Raymond J. Wyrens, M.D. 1935 Nebr.; **SENIOR CONSULTANTS** John G. Brazer, M.D. 1935 Mich., Arthur M. Greene, M.D. 1933 Nebr., Charles R. Hankins, M.D. 1939 Nebr., Wayne M. Hull, M.D. 1932 Okl., Raymond G. Lewis, M.D. 1930 Nebr., Donald G. Penterman, Sr. Consultant for Em. Med. Serv., Willis D. Wright, M.D. 1931 Nebr.

INTERNAL MEDICINE—20

705 Basic Medicine Required Clerkship, Staff—UNMC, OVAMC, Lincoln

Periods Offered: Each eight weeks

Student Limit: 27

Semester Hours: 8

The student is an integral member of the health care team responsible for the care of inpatients on the Internal Medicine service at one of the three hospitals (University Medical Center, Omaha Veteran's Administration Medical Center, or St. Elizabeth's Hospital, in Lincoln). As a team member the student will obtain the initial history and perform thorough physical examinations, assess the patient's problems, and plan diagnostic and therapeutic programs. Students will be expected to assume responsibility for the daily care of their patients commensurate with their level of training. Skills in patient interaction, decision making, and performance of routine procedures will be emphasized. The fundamentals of internal medicine will be reviewed in formal sessions and through daily patient contact. Several of the weekly internal medicine conferences are designed for student participation.

708 Ambulatory Medicine Clinics, Dr. Olson and Staff—UNMC

Periods Offered: Each four weeks

Student Limit: 3

Semester Hours: 4

Prerequisite: 20-705

The student will be part of the team including house officers, faculty, nursing staff, dietetic staff, social service staff, which focuses upon the ambulatory patient and gives attention to both the healthy person and to the early detection and treatment of disease. Students will select and rotate through a variety of University-based clinics, including medicine clinic, with scheduling to be handled by the Department of Internal Medicine. Supplemental reading and/or research in ambulatory health care topics will be required. *This clerkship can include scheduled time in the University Hospital Emergency Room.*

712 Dermatology Outpatient Department Senior Clerkship

Periods Offered: Each four weeks

Student Limit: 3

Semester Hours: 4

Each student will be assigned to a resident and will follow patients for a month period during which time he will be supervised by the staff in dermatologic interview, physical diagnosis, topical therapy, and cutaneous therapeutic procedures (skin biopsy, cautery, cryotherapy, etc.).

714 Omaha Dermatology Clerkship

Periods Offered: Each four weeks

Student Limit: 1

Semester Hours: 4

This is a full-time elective with one of several of the volunteer dermatologic staff who takes one student per month in their private offices. Approval based on availability of periods and student interview.

715 Inpatient General Internal Medicine Clerkship, Drs. Loomis, Lehnhoff, and Osterholm—BCMH

Periods Offered: Each four or eight weeks

Student Limit: 2

Semester Hours: 4

Prerequisite: 20-705

An inpatient general internal medicine experience. Students electing eight weeks will have preference.

- 716 Inpatient General Internal Medicine Clerkship, Drs. Lewis, Lewis and Watson—Immanuel and/or Methodist)**
 Periods Offered: Each four weeks
 Student Limit: 1
 Semester Hours: 4
 Prerequisite: 20-705
 This clerkship offers opportunity for participation in the management of acutely ill patients, working closely with the intensive care unit House Officer, supervisory resident, and attending physician. The experience is enhanced because of frequent consultations with specialty services. The student is also encouraged to participate in the regularly scheduled activities of the medical service.
- 718 Inpatient Consultations Clerkship Staff—OVAMC**
 Periods Offered: Each four weeks
 Student Limit: 1
 Semester Hours: 4
 Prerequisite: 20-705
 On this service the student has the opportunity to see and perform initial consultations on patients on non-medical services for whom internal medicine or certain subspecialty consultations are requested. The activity is closely supervised by the chief medical resident and attending physician appropriate to the problems identified. Students are encouraged to participate in the regularly scheduled activities of the medical service at OVAMC as well. Because of the diverse nature of the problems, the student has the opportunity for unofficially attaching himself to subspecialty services and participating in teaching activities of those services.
- 719 Inpatient Diabetes and Endocrinology, Dr. Stone—BCMh**
 Periods Offered: Each four weeks
 Student Limit: 4
 Semester Hours: 4
 Prerequisite: 20-705
 This elective is designed to offer a careful study of a wide variety of endocrine diseases. Active participation in the primary care service and in the consultation service at Clarkson Hospital is the primary function. The activities include daily rounds at Clarkson Hospital with teaching both on rounds and at formal and informal sessions. The emphasis is on the following conditions: diabetes mellitus and all its complications, hypoglycemic states, thyroid disease, parathyroid disease, and diseases of the adrenal cortex. The main emphasis is upon the recognition and treatment of these conditions. There is an ample supply of patient material from which the student can learn.
- 720 Adult Cardiology Dr. Buell and Staff—OVAMC**
 Periods Offered: Each four weeks
 Student Limit: 2
 Semester Hours: 4
 Prerequisite: 20-705
 This clinical cardiology rotation emphasizes inpatient bedside evaluation through consultations. Reading electrocardiograms is an important part of the clerkship, in addition to observing treadmill exercise testing, echocardiography, vectorcardiography, phonocardiography, pulse displacement and cardiac catheterizations. Weekly conferences and teaching rounds are available. Staffing consists of cardiologists from both the University of Nebraska Medical Center and Creighton Medical Schools. Students may attend scheduled cardiology lectures offered at either school by attending the conference with a representative from the other school.
- 721 Adult Cardiology, Dr. McCall and Staff—UNMC**
 Periods Offered: Each four weeks
 Student Limit: 4
 Semester Hours: 4
 Prerequisite: 20-705
 This is a clinical rotation emphasizing bedside examination of the patient. This involves evaluation of inpatients and outpatients in the cardiology clinics. One week of the rotation is spent at the Heart Station, reading electrocardiograms and observing treadmill exercise testing. Weekly conferences and teaching rounds are available.
- 722 General Medicine, Dr. Meyer—UNMC**
 Periods Offered: Each four weeks (Sept.-March)
 Student Limit: 12
 Semester Hours: 4
 Prerequisite: 20-705
 In the period of one month, this elective will review basic concepts in internal medicine, uncommon diseases, and problem solving.

- 723 Diabetes, Endocrinology and Metabolism**, Drs. Shipp, Gallagher, Ecklund, and Tobin—UNMC/VA
 Periods Offered: Each four weeks
 Student Limit: 4
 Semester Hours: 4
 Prerequisite: 20-705
 Each student will have direct management responsibility for care of inpatients on the Diabetes, Endocrinology and Metabolism Service under the supervision of house officers and staff. Particular emphasis is placed on the diagnosis and treatment of those endocrine disorders encountered with the greatest frequency in the practice of medicine, specifically, diabetes mellitus and thyroid diseases. There will be adequate opportunity to acquire a working understanding of the complex diagnostic approaches for the less common endocrine disorders (adrenal, pituitary, and others). Students who elect an eight week rotation will have increasing responsibility for primary patient care and the opportunity to pursue special projects of a clinical or investigative nature.
- 724 Gastroenterology**, Drs. Paustian and Staff—UNMC, Drs. Zetterman, Burnett, and Staff—OVAMC, and Dr. Schafer—BCMHC
 Periods Offered: Each four weeks
 Student Limit: 3
 Semester Hours: 4
 Prerequisite: 20-705
 This elective in digestive diseases and nutrition emphasizes the application and correlation of the basic science principles of physiology, pharmacology, biochemistry, and pathologic anatomy in clinical gastroenterology. There will be one position available at each hospital.
- 725 Hematology**, Dr. Feagler, and Staff—UNMC/BCMHC
 Periods Offered: Each four weeks
 Student Limit: 2
 Semester Hours: 4
 A broad experience is offered in clinical hematology with emphasis on new concepts in the management of hematologic problems. Patient care serves as a basis for teaching the principles of diagnosis and management of the anemias, leukemia, hemorrhagic disorders, and disorders of immunology. Patients are seen at the Clarkson Hospital. Consultations are answered from general internal medicine and other specialties, and patients are seen in the relevant outpatient clinics. Teaching in a more structured manner is done in weekly blood morphology demonstrations in collaboration with the Department of Pathology in the Blood Club, in which various subjects are discussed. Students who elect hematology have ample opportunity for reading, and research opportunities can be provided for the student by special arrangements.
- 726 Infectious Disease**, Drs. J. C. Davis, & Philip W. Smith—BCMHC/UNMC, Dr. Robert Penn—Methodist
 Periods Offered: Each four weeks
 Student Limit: 1
 Semester Hours: 4
 a) Adult Infectious Diseases: The cornerstone of the Adult Infectious Disease rotation will be clinical responsibility on the infectious disease service at UNMC under the supervision of Dr. Philip Smith. During the basic rotation of rational approach to the diagnosis and therapy of infectious disease will be learned. Other facets of the rotation will include hospital epidemiology, clinical microbiology, infectious disease rounds at UNMC and BCMHC, and infectious disease conferences. Opportunities will be available for special projects in clinical infectious diseases or microbiology.
 b) Pediatric Infectious Disease: The pediatric infectious disease rotation will involve clinical rounds with Dr. Penn at Children's Hospital, as well as training in hospital epidemiology and clinical microbiology.
- 727 Renal**, Drs. Loomis, and Ware—BCMHC and Dr. Egan—OVAMC
 Periods Offered: Each four weeks
 Student Limit: BCMHC-1; OVAMC-2
 Semester Hours: 4
 Experience with patients having acute and chronic renal disease. Experience in hemodialysis and peritoneal dialysis; contact with kidney transplant patients.
- 729 Medical Electronics**, Staff—UNMC
 Periods Offered: Each eight weeks, half time
 Student Limit: 8
 Semester Hours: 4
 Review of electrical and electronic fundamentals and their use in the design and operation of basic medical instrumentation, e.g., physiologic monitors, defibrillators, etc.

730 Medical Oncology/Hematology Drs. Foley, Armitage, Davis, Kessinger, & Lemon—UNMC

Periods Offered: Each four weeks

Student Limit: 4

Semester Hours: 4

This course is aimed to provide the medical student with a balanced experience in the diagnosis and treatment of patients with neoplastic diseases of all types and common problems encountered in hematology. Clinical training is provided in cancer prevention, cancer detection, cell biology of solid tumors and leukemias, clinical pharmacology of hormone therapy, anti-hormone therapy and cancer chemotherapy of all types, and in management of paraendocrine syndromes. In addition, patient care will serve as a basis for teaching the principles of diagnosis and management of anemia, hemorrhagic disorders, and disorders of immunology. Experience includes supervised work-up of mostly well patients among the 7,000 annual clinical visits yearly, daily ward rounds on inpatients, with review of all pertinent laboratory, radiology, ultra-sound, and nuclear medicine data. A combined tumor conference with surgery specialties, radiation oncology and radiology is held each Monday, and a radiation oncology review conference occurs each Friday, and two seminars and case management conferences with oncology nursing and social service are held weekly. There is also weekly blood morphology demonstrations in collaboration with the Department of Pathology in the Blood Club, in which various subjects are discussed. Consultations are answered from General Internal Medicine, other subspecialties. In addition, there are combined Oncology/Hematology Grand Rounds in which all cases are reviewed by the entire staff. Laboratory and clinical investigative experience for 2 months or more if desired is available in cell biology, mechanism of hormone action, anti-carcinogenesis, experimental chemotherapy, cancer epidemiology, and various hematological problems.

731 Inpatient Medicine Dr. Ward—BCMh

Periods Offered: Each four weeks

Student Limit: 4

Semester Hours: 4

Training in the principles of neurophysiology in relation to the psychophysiologic reactions with emphasis on the management of patients with psychophysiologic illnesses. Students and house officers are offered bedside training in the diagnosis and management of many of the chronic and acute diseases which must be managed by practicing internists as well as by those in the academic practice of internal medicine. Experience is also gained by instruction in doing the common procedures.

732 Introduction to Pulmonary Diseases Dr. Burgher and Staff—UNMC/BCMh

Periods Offered: Each four weeks

Student Limit: 4

Semester Hours: 4

The pulmonary division offers an elective designed to provide the student with a practical background in chest medicine. The student will be assigned to either University Chest Service or the Clarkson Chest Service for training in patient management. All students electing the course will attend the didactic lectures in chest diseases, presented three times each week at the University Hospital during the rotation. Those students assigned to the University Chest Service will also have the opportunity of participating in outpatient management of chest diseases twice weekly. In addition to the didactic lectures, the student will also attend two clinical chest conferences and a seminar on interpretation of chest radiographic patterns each week. The course includes practical experience in the performance and interpretation of basic pulmonary function tests.

733 Adult Cardiology, Drs. Miles, Chambers, and Miscia—BCMh

Periods Offered: Each four weeks

Student Limit: 2

Semester Hours: 4

Clinical cardiac experience including cardiac catheterization, electrocardiology, post operative care, and inpatient evaluation.

734 Advanced Internal Medicine Seminar Course, Dr. Sorrell and Staff

Especially to be considered with basic science part-time electives.

735 Honors Program in Internal Medicine, Dr. Sorrell and Staff

Student Limit: 4

By Arrangement Only

737 Diabetes Mellitus Dr. Shipp and Staff

Student Limit: 3

Semester Hours: 1

738 Advanced Endocrinology Dr. Shipp and Staff

Student Limit: 3

Semester Hours: 1

- 739 Metabolism and Nutrition** Dr. Shipp and Staff
Student Limit: 3
Semester Hours: 1
- 741 Advanced Internal Liver Diseases**, Dr. Paustain and Staff
Student Limit: 3
Semester Hours: 1
Advanced Studies of the Cardiovascular Renal System
- 742 Cardiologic Diagnosis and Electrocardiography** Dr. McCall and Staff
Student Limit: 2
Semester Hours: 3
- 743 Management of Heart Disease** Dr. McCall and Staff
Student Limit: 9
Semester Hours: 2
- 744 Hypertension and Nephritis** Dr. McCall and Staff
Student Limit: 9
Semester Hours: 2
- 745 Peripheral Vascular Disease** Dr. McCall and Staff
Student Limit: 3
Semester Hours: 1
- 748 Advanced Hematology**, Dr. R. B. Davis and Staff
Student Limit: 6
Semester Hours: 1-2
Crosslisting: Path 56-865, Anatomy 04-908
- 750 Cardiovascular Seminar** Dr. McCall
Semester Hours: 1
- 752 Medical Seminar** Dr. Sorrell and Staff
Semester Hours: 1
- 760 Off-Campus Medicine Elective**
Periods Offered: Each four weeks
Student Limit: By arrangement (Approval from Dr. David Olson)
Semester Hours: 4
Clerkships in universities or teaching hospitals elsewhere sponsored by a member of the Department of Internal Medicine and in which the instructor directing the elective is not a member of our faculty. Appropriate off-campus electives are those providing opportunities in areas in which we have no comparable programs or in which the University cannot accommodate the number of students desiring the course. Contact Mrs. Atkinson for approval of arrangements.
- 762 Internal Medicine Preceptorship**
Periods Offered: Each four weeks
Student Limit: By arrangement (Approval from Dr. David Olson)
Semester Hours: 4
A preceptorship with a general internist where the student is exposed to outpatient care. A list of Omaha preceptors is available in the Internal Medicine office. An externship is also available at Iowa Methodist Hospital, Des Moines. See Dr. David Olson for details.
- 764 Off-Campus Dermatology Elective United States and/or Europe**
Periods Offered: 4 or 8 weeks
Semester Hours: 4-8
A student may take an elective at another university dermatology training center within the United States, or at an approved foreign facility. Options must be endorsed on an individual basis by the Section Head. Time required for processing is minimum of two months.
- 772 Internal Medicine Core Residency**, Staff
- 774 Internal Medicine Fellowship**, Staff
- 774A Dermatology Second Year Core Residency**, Staff
The second year consists of outpatient dermatology clinics at the Omaha Veteran's Administration Hospital, Creighton-St. Joseph Hospital and Creighton Hospital Care facilities. Inpatient service is at St. Joseph Hospital. Staff supervision on the clinical service stresses one-to-one teaching. Attendance at weekly University of Nebraska Medical Center seminars is required.
- 776 Chief and Associate Chief Residents in Internal Medicine**
There are full-time positions with intense clinical responsibility being assumed under direct faculty supervision.
- 776B Dermatology Third Year Core Residency**, Staff
During the last year senior residents' duties consist of outpatient dermatology clinics with minimal staff supervision at Ehrling Bergquist Regional Hospital (SAC) and the

University of Nebraska Hospital. Inpatient consultation with staff supervision at University of Nebraska Hospital and Creighton-St. Joseph Hospital. Attendance at weekly University of Nebraska Medical Center seminars is required.

799 Research in Medicine Dr. Sorrell and Staff

Periods Offered: Each four or eight weeks

Student Limit: By arrangement

Semester Hours: 4

Should consider applying for research fellowship several months in advance.

MEDICAL SERVICES

Hospital, University of Nebraska, Chief, Michael F. Sorrell

Hospital, Veterans Administration, Chief, Robert Ecklund

Hospital, Bishop Clarkson Memorial, Chief, George Loomis

Hospital, Immanuel Medical Center, Chief, Jack Lewis

Hospital, Nebraska Methodist, Chief, John Sage

Hospital, Bryan Memorial, Chief, Jack Stemper

Hospital, Lincoln General, Chief, D. F. Purvis

Hospital, University Medicine Clinics, Chief, Michael F. Sorrell

Research, Chief, Michael F. Sorrell

Section of Cardiology, Head, David McCall

Section of Clinical Nutrition, Head, Robert E. Hodges

Section of Diabetes, Endocrinology and Metabolism, Head, Joseph C. Shipp

Section of Digestive Diseases and Nutrition, Head, Frederick Paustian

Section of General Medicine, Head, LeeRoy Meyer

Section of Geriatrics and Gerontology, Head, Jane F. Potter

Section of Hematology, Head, Richard B. Davis

Section of Infectious Disease, Head, J. C. Davis III

Section of Oncology/Hematology, Head, John Foley

Section of Pulmonary Medicine, Acting Head, Louis Burgher

Section of Renology, Acting Head, Frederick Ware

Section of Rheumatology and Immunology, Head, Lynell W. Klassen

It is the aim of instruction in internal medicine to establish a broad and thorough understanding of patients with disease and to develop a scholarly approach to the study of medical problems. Intensive study by each student of relatively fewer patients is emphasized rather than superficial observation of many patients. The student studies health as well as disease and early phases as well as late stages of disease. Small group conferences (four to six students) are utilized, with each member of the group participating. Time is allowed in each weekly program for reading, research, and other independent pursuits for the purpose of establishing habits for self-development that will persist for life.

MEDICAL JURISPRUDENCE AND HUMANITIES

PROFESSORS Walter J. Friedlander (Chairman), M.D. 1945 Calif., JoAnn Carrigan, Ph.D. 1961 Louisiana State, Alfred G. Ellick, J.D. 1941 Mich., Russell W. Palmer, Ph.D. 1966 Iowa, Dale Stover, Ph.D. 1967 McGill Univ.(Montreal), Richard S. Thill, Ph.D. 1973 UCLA; **ASSOCIATE**

PROFESSORS David J. Fine, M.H.A. 1974 Minnesota, Father James E. Hoff, Ph.D. 1969 Gregorian Univ. (Rome, Italy), Richard A. Overfield, Ph.D. 1968 Maryland, Ruth B. Purtilo, Ph.D. 1979 Harvard, Robert M. Spire, L.L.B. 1952 Harvard; **ASSISTANT PROFESSORS** Nathaniel Givner, Ph.D. 1974 Nebr., Kevin P. Hynes, Ph.D. 1976 Purdue, Michael D. Jones, J.D. 1969 Creighton, Saul F. Rosenthal, Ph.D. 1975 Ill.; **INSTRUCTOR** Joseph K. Meusey, J.D. 1965 Iowa; **ASSISTANT INSTRUCTOR** Anece F. McCloud, B.S. 1959 Bennett.

The courses offered in this department are those concerned with the various humanities and social sciences which relate to the practice of medicine.

MEDICAL JURISPRUDENCE AND HUMANITIES—28

502 Medical Jurisprudence (1 s h cr)

Medical legislation, medical evidence and witnesses, privileged communications, general medico-legal relations, physicians' contracts and compensation, malpractice, legal problems relating to conception and childbirth, and liability of hospitals and nurses are some of the subjects discussed.

550 Clinical Medical Humanities (2 s h cr)

This is an introduction into the role of history, sociology and ethics in medical practice. With an historical and sociological bias, it defines the function of a physician as well as the role of the medical profession, defines the patient as an entity, and examines the interface between the two as well as methods for resolving the moral and ethical dilemmas that arise from this interface.

622 Medical History (1 s h cr)

This is a series of didactic lectures which offer an introduction into the history of medicine and allied fields. It stresses the development of ideas and the relation of medicine and society rather than only biographic material. It is designed to demonstrate one aspect of humanism in medicine.

626 Human Values in Medicine (1 s h cr)

The goal of this course is to confront medical students, as well as students preparing for other health professions, with the relevance of human values (ethics and morals) to their professional concerns.

628 Ethics in Human Research (1 s h cr)

Following an introduction into the methods of arriving at an ethical basis for decisions, the problems of ethics in human research are explored by case presentations, readings, and discussions.

630 Comparative Religion on Illness, Healing and Death (1 s h cr)

The basic aim of this course is to delineate the various world-views of contemporary religions which are likely to be encountered in our pluralistic society with regard to their conceptions of illness, healing and death. Attention is given both to the general definitions of health, body, medicine, etc. as understood by a particular religious world-view and to the special issues that religion may represent for a contemporary approach to medical theory and practice.

632 Introduction to Folk Medicine (1 s h cr)

This is an introduction to the concepts and history of folk medicine and its role in modern scientific medical practice. It emphasizes the implications of traditional belief systems for the practice of medicine.

634 Basic Statistics in Medicine

Periods Offered: By arrangement

Student Limit: By arrangement

Semester Hours: 2

This course provides a conceptual understanding of basic statistics relevant to medicine and the opportunity to use a computer package to solve relevant statistical problems. No prior experience in statistics or computer programming is necessary.

640 Human Relations Skills for the Health Care Professional (3 s h cr)

Purpose of course is to develop skills necessary for effective interaction between health care providers and patients. Students gain understanding of barriers to effective interpersonal communication as well as learn to develop good listening skills, to use appropriate body language, to accurately reflect the concerns of the patients, and to facilitate patient compliance. (Given jointly with Aging Studies Section, 09 0340)

770 Advanced Seminar in Medical Humanities

Periods Offered: By arrangement

Student Limit: By arrangement

Semester Hours: 1

This course allows individual students to pursue a special interest in selected areas of medical humanities with members of the department. Satisfactory completion of 622 and/or 626 or equivalent is required.

MEDICAL MICROBIOLOGY

PROFESSORS Harry W. McFadden (Chairman), M.D. 1943 Nebr., George R. Dubes, Ph.D. 1953 Calif. Inst. of Tech., Norman G. Miller, Ph.D. 1953 Wash. State, V. Lyle VonReisen, Ph.D. 1955 Kansas; **ASSOCIATE PROFESSORS** Jerry W. Jones, M.D. 1958 Cincinnati, Robert E. McCarthy, Ph.D. 1956 Brown, C. Kirk Phares, Ph.D. 1971 Louisiana State, Roberta J. White, Ph.D. 1961 Calif.; **ASSISTANT PROFESSORS** Sheldon J. Booth, Ph.D. 1975 Nebr., Marietta M. Henry, M.D. 1967 Indiana, Marilyn W. Johnson, M.P.H. 1958 Johns Hopkins, Roger H. Kobayashi, M.D. 1975 Nebr., Robert L. Kruger, M.D. 1959 Mich., Thomas L. McDonald, Ph.D. 1972 Wash. State, Phillip W. Smith, M.D. 1972 Chicago; **INSTRUCTORS** Joyce M. Kinsey, M.S. 1976 Nebr., Paul Yam, M.S. 1969 Nebr.; **ASSISTANT INSTRUCTORS** Gerald E. Berthold, M.T. 1974 Nebr., Susan K. Swanson, B.S. 1973 Nebr..

It is the goal of the faculty of this department to develop with the student a balanced concept of immunology, medical microbiology and infectious disease. Endeavor is made to demonstrate the principles of pathogenesis, host parasite relationships, and molecular biology as these affect the field of medical microbiology. As specific goals we consider with the student the effects upon the human host of microbial agents and suggest the manner in which a microbiological diagnosis may be made. This is accomplished by lectures and laboratories which emphasize such host parasite relationships, pathogenesis, and principles of infectious disease. Principles of immunology are considered as well as those immune responses which are associated with infectious diseases.

Medical Microbiology 620 and 621 aim to acquaint students with the basic principles of microbiology and immunology particularly as these relate to infection and disease. The instruction offered in these courses is supplemented with more advanced and specialized courses (640 to 999) for students who are candidates for the M.S. or Ph.D. degree and for other students such as the honors student, residents in specialty training, and others desiring advanced work in medical microbiology, independently of the requirements for a degree. For more details concerning the program in graduate education, please see the Bulletin of Graduate Studies of the University of Nebraska Medical Center or the Handbook of Clerkships and electives of the College of Medicine. Certain of these advanced level courses, which have been attractive to medical students in the past are listed here for the student's convenience.

MEDICAL MICROBIOLOGY—32

620/621 Medical Microbiology and Immunology I, II (6 & 3 s h cr respectively) McFadden & Staff (820/821 G)

These courses when taken in sequence comprise a composite course in Medical Microbiology and Immunology extending over two academic semesters. The courses consist of lectures, conferences, and laboratories. The basic principles of bacteriology, mycology, parasitology, virology, immunology and microbial genetics are covered. The cultural characteristics and pathogenic properties of medically important species of bacteria, fungi, and viruses are presented. Host-parasite relationships including immunological responses to infections are described. Protozoa, helminths, and arthropods of medical importance are studied. The courses cannot be used by majors in Medical Microbiology as credits required for the Master of Science or Doctor of Philosophy degrees, unless specifically approved by the Departmental Graduate Committee or the student's Ph.D. Supervisory Committee, respectively.

640 Diagnostic Bacteriology, McFadden, Staff (2-6 s h cr) (940G)

Prerequisite: A laboratory course and in Bacteriology and MM 820, 821 or equivalent or by permission. By arrangement.

Special techniques for isolation, identification, and susceptibility testing of microorganisms from clinical matter available in the diagnostic laboratories of the University of Nebraska Medical Center. Practical approach with conference and laboratory.

642 Diagnostic Virology, White, Staff (3-6 s h cr) (942G)

Prerequisite: A laboratory course in Bacteriology, 620 and 621 or by permission. By arrangement.

A study of specific techniques for the isolation and identification of viruses from clinical material available in the diagnostic virology laboratory of the University of Nebraska Medical Center. Practical approach with conference and laboratory.

660 Off-Campus Elective, McFadden (cr arr)

By permission.

Tutorial or preceptor experience in some aspect of Medical Microbiology, Immunology, or Infectious disease (basic or clinical).

692 Advanced Topics in Microbiology, Staff (cr arr) by permission (992G)

This course constitutes advanced study (research other than thesis) in one of the several disciplines of medical microbiology such as bacteriology, immunology, mycology, virology, parasitology, electron microscopy, tissue culture, etc.

NOTE: Medical students who wish to take a Basic Science Elective Clerkship experience in Medical Microbiology may register, after appropriate departmental consultation, in this course.

MEDICAL SOCIAL WORK

MEDICAL SOCIAL WORK—34

720 Medical Social Work Elective, Hansen, Staff

Periods Offered: Each 4 weeks

Student Limit: 2

Semester Hours: 4

Students will work with both hospitalized and clinic patients. They will be assigned to patients known to the Social Work Department because of difficulties in coping with illness and with planning for discharge, return to the community, and continuity of care in the community. Students will talk with patients and their families and work in conjunction with the social workers.

NEUROLOGY

PROFESSORS Donald R. Bennett (Chairman), M.D. 1955 Georgetown, John A. Aita (Emeritus), Ph.D. 1944 Minn., M.D. 1937 Iowa, Robert N. Baker, M.D. 1949 So. Calif., Robert J.

Ellingson, Ph.D. 1950 Northwestern, M.D. 1963 Nebr., Walter J. Friedlander, M.D. 1945 Calif., Arnold H. Greenhouse, M.D. 1951 Kansas, Robert S. Wigton (Emeritus), M.D. 1935 Nebr.; **ASSOCIATE PROFESSORS** John C. Goldner, M.D. 1963 Nebr., Harold A. Ladwig, M.D. 1947 Iowa, Agapito S. Lorenzo, M.D. 1957 Philippines, Jason Ohr, M.D. 1962 Seoul, Erich W. Streib, M.D. 1967 Tuebingen (W. Germany); **ASSISTANT PROFESSORS** John F. Aita, M.D. 1968 Nebr., Lewiston Birkmann, M.D. 1971 Nebr., Ronald A. Cooper, M.D. 1971 Iowa, Joel T. Cotton, M.D. 1974 Nebr., Clifford M. Danneel, M.D. 1960 Iowa, Douglass A. Decker, M.D. 1965 Penn., Jerrard J. Hertzler, M.D. 1962 Kansas, Fred J. Kader, M.D. 1964 McGill, Ronald F. Pfeiffer, M.D. 1973 Nebr., Edward M. Schima, M.D. 1964 Northwestern, Robert M. Shuman, M.D. 1968 Stanford, David L. Smith, M.D. 1971 Louisiana, Sallie F. Sun, M.D. 1964 Penn., Richard D. Torkelson, M.D. 1971 Rochester, Leonard E. Weber, M.D. 1971 Creighton, George J. Wolcott, M.D. 1962 George Wash.; **INSTRUCTORS** Winslow J. Borkowski, Jr., M.D. 1975 Jefferson, Asma Q. Fischer, M.B.B.S. 1973 Karachi (Pakistan).

NEUROLOGY—36

604 Introduction to Neuroscience (2 s hr cr)

Provides for the teaching of the essential fundamentals necessary for the clinical approach and evaluation of patients with neurological diseases. The format combines lectures, patient demonstrations, case presentations, CPC's, and small group sessions under faculty supervision.

732 Clinical Neuroscience Clerkship

Periods Offered: Each 4 weeks

Student Limit: 7 (4 at UNH; 3 at VA Hospital)

Semester Hours: 4

Prerequisite: Internal Medicine Required Clerkship

This elective offers students a combined neurology (3 weeks) and neurosurgery (1 week) experience where evaluation, diagnosis, and managerial approaches are experienced under close faculty supervision. Focus is also flexible enough to serve the student's interest in electroencephalography, electromyography, and/or neuropathology.

734 Clinical Pediatric Neurology

Periods Offered: Each 4 weeks

Student Limit: 1

Semester Hours: 4

Prerequisite: Pediatric Clerkship

This course offers students clinical pediatric neurology experience with specific focus on the evaluation, diagnosis, and treatment of the neurological diseases in children from conception to the adult state under close supervision of the faculty.

760 Off-Campus Neuroscience Elective

Periods Offered: Each 4 weeks

Student Limit: By arrangement

Semester Hours: 4

Arrangements must be made by the student and approved through the Department of Neurology at least two months in advance of elective date.

790 Clinical Research Elective

Periods Offered: All semesters

Student Limit: By arrangement

Semester Hours: Total hours are by individual arrangement

This elective offers students an opportunity to work with faculty members in clinical investigations of neurological diseases and to participate in ongoing research projects. Definition of problems and program of learning to be decided upon discussion with faculty.

772 Junior Residency In Adult Neurology

Prerequisites: 1 year Medicine, Family Practice or rotating internship in an approved program.

The first year of the residency program is spent in the inpatient and outpatient adult neurology services. Teaching emphasis is placed on the neurological history and examination, differential diagnosis and familiarity with laboratory procedures and treatment and management regimes. The resident is exposed to patients with a diversity of neurological diseases, assumes responsibility for patient care and is closely supervised. First year rotations consist of four consecutive months at each of the participating hospitals, the University of Nebraska Hospital, Veterans Administration Hospital, and St. Joseph Hospital.

774 Intermediate Residency In Adult Neurology

1. Pediatric Neurology—(four months, University of Nebraska Hospital). The goals and objectives of this rotation are to familiarize the adult neurology resident with developmental neurology in relationship to the neurologic examination,

neuropathology, neurophysiology, and clinical implications of the child from conception to the adult state. It is hoped that this will enhance the resident's education so that he or she is familiar with neurologic problems during the developmental period and to broaden the trainee's understanding of pathology that might exist in the adult patient as a result of neurologic problems during the developmental period.

2. Neuropathology—(four months, University of Nebraska Hospital). Neuropathology is a full-time assignment for a four month period. One neuropathology conference is held each week, rotating among the three teaching hospitals. These consist of brain cutting, microscope review and teaching conferences. There is a monthly neurological clinical-pathological conference. The resident assigned to neuropathology attends and participates in all these conferences and is responsible for writing the CPC. Microscopic neuropathology on all cases is examined by the resident and reviewed with the neuropathologist. Special study sets are used and reviewed with the resident. Gross and microscopic photographs, case abstracts and interpretations are available for study. The study program includes an introduction to neurohistology, enzyme histochemistry, electron microscopy and experimental neurology. The assignment in neuropathology includes a review of neuroanatomy and a review of relevant general pathology. Experience and training in muscle and brain biopsy is also included.

3. EEG and evoked potentials—(four months, University of Nebraska, St. Joseph, and Veterans Administration Hospitals). The resident spends a four month rotation in EEG and evoked potentials. Both laboratory and didactic experience in electronics, equipment, techniques and interpretation is received. By the time the rotation is completed the resident is expected to be able to run a complete EEG on a patient including preparing the patient for the test. Reading sessions are conducted daily with the attending. The resident will have reviewed all records prior to this conference. A weekly one-and-one-half hour conference review of interesting records from the three hospitals is also held. Books, references, articles, manuals, and teaching records are available for self-study.

776 Senior Residency in Adult Neurology

1. EMG—In the four months exposure to neuromuscular techniques both didactic and practical experience are scheduled. The former includes the review of electrophysiology with emphasis on the physiological basis of nerve excitability and conduction of the nerve impulse, review of clinical physiology of the neuromuscular transmission and the known clinical alterations at this point of nerve transmission, review of the physiology of excitation-contraction, coupling and various clinical conditions relating to muscle fiber problems. The resident will spend time with the electromyographer in a weekly clinic learning equipment and techniques for motor and sensory conduction studies, neuromuscular transmission assessments, EMG with needle electrodes, H-reflex and blink reflex studies. When he is familiar with these techniques he will be allowed to perform these studies under the supervision of the electromyographer. The resident will also be expected to attend the muscle disease clinic.

2. Neuroradiology—(four months, University of Nebraska and St. Joseph Hospitals). The resident spends a four month rotation under the supervision of the neuroradiologist. During this period he learns the techniques and potential risks of the various diagnostic studies with emphasis on computerized axial tomography. He will also learn normal radiographic anatomy. Through daily review of all x-rays with the staff he will become familiar with the various abnormalities. He will participate in the neuroradiology seminars held at both institutions. Teaching files are available for his review.

3. Electives—(four months) The elective program is flexible both in type and time. Before electives are selected the resident meets with the Program Director to review his or her needs. Current clinical electives are offered in Neurosurgery, 2 or 4 months, Nebraska or St. Joseph; Psychiatry, 2 or 4 months, Nebraska; rotation with private practicing neurologist in town who has a departmental appointment, 2 or 4 months. Further training in EEG, EMG, neuropathology, adult or child neurology, can also be obtained in this time period. The resident may also be encouraged to utilize this time to engage in research under the supervision of a member of the Department of Neurology or of a basic neuroscience department. When appropriate, an elective may be taken at another institution. Following completion of electives the trainee will notify the Director of its value and limitations. At the same time, the physician in charge of the elective will report to the Director on the resident's performance.

776 Senior Residency in Neurology with Special Competency in Child Neurology

Prerequisites: Two years pediatrics (H.O. I and H.O. II) as well as 772 and 774 adult neurology.

The goals and objectives of the course are to complete the resident's education in pediatric neurology with encouragement into academic and research endeavors. To accomplish this the student will spend one year on the pediatric neurology service during

which time he or she will have full clinical responsibility for patients on the pediatric neurology service, both inpatient and ambulatory. The program will be under the direct supervision of the Director of Child Neurology, and Chairman of Neurology.

NEUROSURGERY

PROFESSOR F. Miles Skultety (Chairman), M.D. 1946 Rochester, Ph.D. 1958 Iowa; **ASSOCIATE PROFESSOR** Bradley M. Berman, M.D. 1961 West. Res.; **ASSISTANT PROFESSORS** Louis J. Gogela, M.D. 1943 Nebr., Lyal G. Leibrock, M.D. 1969 So. Calif.; **INSTRUCTORS** Benjamin R. Gelber, M.D. 1973 N.Y., John L. Greene, M.D. 1958 Nebr., Leslie C. Hellbusch, M.D. 1972 Chicago, Eric W. Pierson, M.D. 1973 N.Y.; **SENIOR CONSULTANTS** Kenneth M. Browne, M.D. 1944 Nebr., Alister I. Finlayson, M.D. 1937 Nebr..

NEUROSURGERY—38

732 Clinical Neuroscience Clerkship (same as 36-732)

Periods Offered: Each 4 weeks

Student Limit: By arrangement

Semester Hours: 4

Elective offers student a combined neurology and neurosurgical clinical experience where evaluation, diagnosis and managerial approaches are experienced under close faculty supervision. Focus is also flexible enough to serve the student's interest in electroencephalography, electromyography, and/or neuropathology.

734 Pain Management Center Clerkship

Periods Offered: Each 4 weeks

Student Limit: 1

Semester Hours: 4

This elective offers the student exposure to a multidisciplinary treatment facility for chronic pain which cannot be treated medically or surgically. Students will have an opportunity to learn about biofeedback, individual psychotherapy and group counseling, exercise, physical therapy, medication withdrawal, and neurological issues, as they apply to chronic pain patient. Medical supervision will be provided by the Department of Neurosurgery.

738 Neurosurgery Clerkship

Periods Offered: Each 4 weeks

Student Limit: By arrangement

Semester Hours: 4

Prerequisite: Surgery required clerkship

Elective offers student experience with respect to diagnosis, treatment and management of patients with neurosurgical diseases under close supervision of the faculty.

OBSTETRICS-GYNECOLOGY

PROFESSORS Joseph C. Scott, Jr. (Chairman), M.D. 1957 St. Louis, Robert C. Goodlin, M.D. 1953 Oregon, Leon S. McGoogan, M.D. 1925 Penn.; **ASSOCIATE PROFESSOR** Ralph E. Woods, M.D. 1953 St. Louis; **ASSISTANT PROFESSOR** Allan J. Jacobs, M.D. 1972 So. Calif.; **CLINICAL ASSOCIATE PROFESSOR** William P. Heidrick, M.D. 1960 St. Louis; **SENIOR CONSULTANT** W. Riley Kovar, M.D. 1935 Creighton; **RESEARCH PROFESSOR** Wayne L. Ryan, Ph.D. 1953 Mo.;

RESEARCH ASSOCIATE PROFESSOR Gary L. Curtis, Ph.D. 1971 Nebr.; **INSTRUCTORS** V. Jean Burks R.N. 1946 Nebr., Irene B. Frederick, M.D. 1976 Penn., Joyce A. Gray, M.S.W. 1976 Nebr., Margot B. Mason, B.S. 1948 Miami; **VOLUNTEER FACULTY** George M. Adam, M.D. 1972 Nebr., Harley E. Anderson, M.D. 1925 Nebr., Craig A. Bassett, M.D. 1974 Nebr., Dennis D. Beavers, M.D. 1965 Nebr., John M. Bennett, M.D. 1974 Creighton, William C. Boelter, M.D. 1946 Nebr., Daniel G. Bohl, M.D. 1959 Nebr., Ernest K. Bussinger, M.D. 1972 Nebr., Robert T. Byington, M.D. 1971 Nebr., Walter T. Cotton, M.D. 1944 Nebr., Marvin L. Dietrich, M.D. 1966 Nebr., Colleen W. Dilley, M.D. 1965 Nebr., Thomas F. Dolnicek, M.D. 1978 Nebr., James H. Elston, M.D. 1959 Creighton, Loren L. Faaborg, M.D. 1975 Nebr., Charles A. Field, M.D. 1945 Iowa, Terence K. Foote, M.D. 1977 Nebr., Richard E. Garlinghouse, M.D. 1934 Penn., Russell L. Gortey, M.D. 1951 Nebr., Richard K. Green, M.D. 1964 Nebr., Hodson A. Hansen, M.D. 1942 Nebr., Harold E. Harvey, M.D. 1947 Nebr., Donald V. Hirst, M.D. 1941 Duke, David G. Holdt, M.D. 1978 Nebr., Roger S. Jernstrom, M.D. 1957 Utah, L. Palmer Johnson, M.D. 1956 Nebr., Lawrence R. Jones, M.D. 1977 Nebr., Warren T. Kable, M.D. 1974 Texas, Gerald S. Keasling, M.D. 1975 Nebr., Terrence J. Kolbeck, M.D. 1968 Nebr., C.J. LaBenz, M.D. 1975 Nebr., Kirk C. Lewis, M.D. 1960 Nebr., Robert J. Luby, M.D. 1952 Creighton, Bernard Magid, M.D. 1954 Nebr., Charles W. Marlowe, M.D. 1971 Nebr., Myrle F. Marsh, M.D. 1954 Indiana, Ronald L. Marshall, M.D. 1967 Nebr., Thomas E. Martin, M.D. 1976 Nebr., John O. McCarthy, M.D. 1951 Nebr., Kenneth T. McGinnis, M.D. 1941 Nebr., Leland J. Olson, M.D. 1944 Nebr., G. William Orr, M.D. 1962 Nebr., John P. Reilly, M.D. 1966 Creighton, Larry E. Roffman, M.D. 1955 Iowa, William L. Rumbolz,

M.D. 1944 Nebr., Colin B. Schack, M.D. 1951 Nebr., John H. Schulte, M.D. 1977 Nebr., Raymond L. Schulte, M.D. 1971 Nebr., Raymond A. Sundell, M.D. 1957 Nebr., Bernie D. Taylor, M.D. 1957 Nebr., Willis H. Taylor, Jr., M.D. 1941 Nebr., F. Edward Waechter, M.D. 1975 Nebr., Ronald L. Wax, M.D. 1965 Nebr., Howard F. Yost, M.D. 1953 Nebr.

OBSTETRICS-GYNECOLOGY—40

614 **Reproductive Medicine**, (2 s h cr) (Sp) Staff

This course provides an introduction to obstetrics and gynecology. Course content includes diagnosis and care of the normal and abnormal obstetric patient, assessment of the intrauterine patient, and discussion of female pelvic disease. The information will be considered as core material and successful completion of the course is a prerequisite to the primary clinical clerkship.

620 **Introduction to Obstetrics and Gynecology**, Staff

Anatomy, physiology, and biochemistry of normal human reproduction, and their relation to clinical obstetrics and gynecology.

640 **Introduction to Family Planning and Contraceptive Techniques**, Frederick

Prerequisite: 88-514

Basic familiarization with methods in family planning at UNH clinics and family planning clinics in Omaha under staff supervision. The student will also complete a programmed text in family planning which will be given to him at the beginning of the elective period.

642 **Introduction to Clinical Gynecologic Endocrinology**

Prerequisite: Biochemistry 510

An introductory clinical course which is directed at correlating the biochemical basis to disease with endocrine aspects of OB-GYN practice. The student will be required to complete a programmed text which will be provided to him in gynecologic endocrinology and will attend the endocrine clinic and conferences at UNH.

644 **Advanced Topics in Obstetrics and Gynecology**

Prerequisite: 80-514

In depth investigation into one of the basic clinical areas in obstetrics and gynecology from course in interdepartmental reproductive biology with the goal of development of an audiovisual teaching package in that specific area.

646 **Basic Principles of Fetal Monitoring**, Goodlin

Prerequisite: 88-514

An introduction into techniques of fetal monitoring, the clinical course of labor and management of the patients in labor utilizing external and internal methods of fetal monitoring.

705 **Junior Clinical Clerkship**, Staff

Periods Offered: Each 8 weeks

Student Limit: 30

Semester Hours: 8

Junior-year students are assigned to the University Hospital and affiliated hospitals for inpatient experience and to the University Hospital clinics for outpatient obstetric and gynecologic clinics. They will follow the progress of patients in labor, assist at operative procedures, and maintain a complete record until the patient is discharged from the hospital. Outpatient experience will include participation in the following clinics: normal and complicated obstetric, gynecologic, and family planning. Seminars, conferences, and ward rounds are scheduled regularly.

710 **Outpatient**, Staff

Periods Offered: Each 4 weeks

Student Limit: 3

Semester Hours: 4

Obstetric, gynecologic, and specialty clinic experience including family planning. Daily seminars with the faculty to discuss special problem areas in obstetrics and gynecology.

720 **Advanced Obstetrics**, Staff

Periods Offered: Each 4 weeks

Student Limit: 2

Semester Hours: 4

722 **Advanced Gynecology**, Staff

Periods Offered: Each 4 weeks

Student Limit: 2

Semester Hours: 4

A University Hospital inpatient service at the intern level emphasizing obstetrics and/or gynecology. Daily participation in staff seminars and teaching activities.

- 724 Obstetrics and Gynecology Tutorial**, Individual physicians
 Periods Offered: Each 4 weeks
 Student Limit: 1 or 2 per faculty member
 Semester Hours: 4
 Individual students work in a one-to-one relationship with the staff at the University Hospital or with a volunteer faculty member at an affiliated hospital. By approval only.
- 760 Off-Campus Elective**
 Periods Offered: Each 4 or 8 weeks
 Student Limit: By arrangement
 Semester Hours: 4
 Clerkships in University or teaching hospitals elsewhere. By individual approval only.
- 772 Core Residency**, Scott, Staff
 Prerequisite: Degree of M.D. from an accredited U.S. Medical School.
 Foreign medical graduates are required to have an E.C.F.M.G. Certificate.
 This is a four year program. The resident rotates between clinical obstetric services including inpatient and outpatient and gynecologic services including inpatient and outpatient. These services are in the University Hospital or one of its integrated hospitals. An additional rotation is a period of time devoted to pathology, endocrinology, internal medicine, anesthesia, and neonatology. Attendance at the weekly resident seminars is mandatory.
- 774 Chief Residency**
 The chief resident has a clinical experience of eight months on inpatient and outpatient gynecology and four months on inpatient and outpatient obstetrics. Following completion of the core residency and the chief residency, the Board requirements of the American Board of Obstetrics and Gynecology are fulfilled. All residents participate in staff conferences, journal club, radiology seminars, and grand rounds.
- 796 Research, Medical Education**, Staff
 Periods Offered: Each 4 weeks
 Student Limit: 1
 Semester Hours: 4
 Problems of core curriculum, development of audiovisual aids, and evaluation in undergraduate education.
- 797 Research, Family Planning**, Staff
 Periods Offered: Each 4 weeks
 Student Limit: 1
 Semester Hours: 4
 Problems of family planning, including clinical experience in a variety of settings.
- 798 Research, Maternal and Infant Care**, Staff
 Periods Offered: Each 4 weeks
 Student Limit: 1
 Semester Hours: 4
 Problems of pregnancy and the perinatal period in relation to maternal health care programs.
- 799 Research, Gynecologic Cancer**, Jacobs
 Periods Offered: Each 4 weeks
 Student Limit: 1
 Semester Hours: 4
 Problems of diagnosis and treatment of malignant disease of the female reproductive system.

OPHTHALMOLOGY

PROFESSORS Raymond E. Records (Chairman), M.D. 1961 St. Louis, Frank L. Eagle, M.D. 1941 Nebr., John C. Filkins, M.D. 1946 Nebr., Stanley M. Truhlsen, M.D. 1944 Nebr.; **ASSOCIATE PROFESSORS** Gerald R. Christensen, M.D. 1961 Oregon, Charlton R. Latta, M.D. 1957 Nebr., Frederick A. Mausolf, M.D. 1968 Loyola, Richard H. Meissner, M.D. 1955 Nebr., Roy F. Statton, M.D. 1950 Iowa; **ASSISTANT PROFESSORS** Aziz Y. Anis, M.B.B.Ch. 1961 Cairo (Egypt), Robert C. Chase, M.D. 1954 Nebr., Terry A. Cox, M.D. 1975 Kansas, Mark E. Crawford, M.D. 1957 Nebr., Howard A. Dinsdale, M.D. 1954 Nebr., Daniel S. Durrie, M.D. 1975 Nebr., Robert G. Faier, M.D. 1958 Nebr., Gerald F. Geiger, M.D. 1961 Nebr., John D. Griffiths, Jr., M.D. 1963 Nebr., Loran B. Morgan, M.D. 1943 Minn., William F. Nye, M.D. 1958 Nebr., John W. Pemberton, M.D. 1958 Nebr., John T. Ramsell, M.D. 1964 Iowa, Sebastian J. Troia, M.D. 1976 Creighton, Mylan R. Van Newkirk, M.D. 1968 Nebr.; **INSTRUCTORS** Donald L. Arkfeld, M.D. 1973 Nebr., J. Kemper Campbell, M.D. 1968 Kansas, Raymond M. Crossman, M.D. 1974 Nebr., Everett C. Madson, M.D. 1970 West. Res., Michael X. McIntosh, M.D. 1969 Creighton, Leiberg

F. Meyer, M.D. 1970 Creighton, Ira A. Priluck, M.D. 1972 Okla., William R. Schlichtemeier, M.D. 1973 Nebr., Steven E. Shette, M.D. 1973 Nebr., Vincent J. Sutton, M.D. 1976 Nebr., Carl J. Troia, M.D. 1953 Creighton, Sebastian J. Troia, M.D. 1976 Creighton, Larry W. Wood, M.D. 1966 Nebr.

OPHTHALMOLOGY—44

602 Principles of Clinical Ophthalmology (1 s h cr)

The many disciplines which make up the broad field of clinical ophthalmology are presented in a concise and encapsulated manner. These include elementary geometric optics, physiologic optics, external disease, disease processes peculiar to the visual system and the ophthalmic manifestations of systemic disease. The goal of this course is to give the student a firm foundation of basic ophthalmic knowledge which will aid in differentiating normal variation from true disease processes. Such basic knowledge and diagnostic skills will compliment and enhance the individual's diagnostic and therapeutic efforts in any area of clinical medicine.

720 Clinical Ophthalmology, Records (UNH/OVAH)

Periods Offered: Each 4 weeks (8 weeks by arrangement with Chairman)

Student Limit: 2

Semester Hours: 4

The elective in Clinical Ophthalmology will include experience in all areas of general ophthalmological diagnosis and therapy. Within this wide field the following areas will receive particular emphasis: 1) Ophthalmic history taking and its correlation to the general medical history; 2) Functional evaluation of the visual system including determination of near and distance, visual acuity, the size, and shape of the visual field, color vision, stereopsis, and other testing procedures designed to detect dysfunction of any components of the visual system; 3) Direct examination of the visual system including both applanation and indentation tonometry, the use and limitation of the slit-lamp, direct and indirect ophthalmoscopy; and 4) Observation and participation in ocular surgical procedures. The goal of this program is to lay a firm foundation of basic knowledge and diagnostic skill which will aid the non-ophthalmologist in evaluating disease processes of the eye adnexa, and visual pathways. Such knowledge will make for more rational and complete patient care as well as understanding the problems of the patients who have ophthalmic disease or ophthalmic manifestations of systemic disease processes.

760 Off-Campus Elective

Periods Offered: Each 4 weeks

Student Limit: By arrangement with department Chairman

Semester Hours: 4

Clerkships in teaching hospitals elsewhere. By individual approval only.

772 Residency Program in Ophthalmology

The residency training program in ophthalmology is 36 months in duration. It is fully accredited by the Liaison Committee on Graduate Medical Education and fulfills the formal training requirement for certification by the American Board of Ophthalmology. Two appointments are made effective July 1st of each year. Successful applicants are generally notified of their appointment some eighteen months prior to the start of formal training.

Facilities: Four hospitals in the Omaha area are utilized for resident training activities:

1. The University of Nebraska Medical Center Hospital, a 296-bed general hospital which functions as the primary teaching facility of this program.
2. The Omaha Veterans Administration Medical Center, a 486-bed facility, is an important source of both medical and surgical cases for further in-depth ophthalmic teaching.
3. The Bishop Clarkson Memorial Hospital and 596-beds provides additional clinical material as does
4. St. Joseph Hospital with 570-beds.

The University of Nebraska Medical Center Ophthalmology Clinic furnishes outpatient care to a wide range of patients. No income restrictions are applied to patients seeking care and services. This brings a complete spectrum of clinical material ranging from totally indigent to full-pay private patients. The Omaha Veterans Administration Medical Center maintains an extremely active ophthalmology service which functions both as an outpatient screening facility and an inpatient surgical service. A large volume of cases are seen at this hospital yearly and an unusually high percentage of them undergo major ophthalmic surgical procedures. The Bishop Clarkson Memorial Hospital has a small outpatient service and an active emergency room. A large volume of surgical cases are obtained from these sources.

The clinical facilities of both the University of Nebraska Medical Center Hospital and the Veterans Administration Medical Center are among the best equipped in the United States. The latest in diagnostic and refraction equipment is available and all surgical procedures are performed utilizing the operating microscope.

THE TRAINING PROGRAM

First Year: Each new resident is given a short orientation and then is assigned to work under the supervision of a second year resident. As soon as the individual demonstrates a reasonable degree of competence in the management of simple ophthalmic problems he is given his own completely equipped examination room and is assigned random patients from the general eye clinic population. The neophyte resident then undertakes diagnosis and management of these patients under the careful guidance of an attending faculty member. He is encouraged to move as rapidly as possible in developing the skills which are necessary to become a thorough and complete ophthalmic clinician. The best interest of the patient, however, is always the primary concern, and all steps of diagnosis and management are made under careful supervision. As the resident gains more experience and confidence, more latitude is given until at the end of the freshman year a high degree of competence has been obtained in management of everyday ocular complaints. This includes the evaluation of patients who will undergo routine ocular surgery as well as both simple and complicated problems in refraction and medical ophthalmology. Much emphasis is placed upon developing the important skill of ophthalmic history taking and performing a meticulous and detailed examination.

Second Year: An important and rewarding part of the training of each second year resident is close supervision of the freshman residents as they become active in the operation of the clinic. The second year resident continues to improve his skills in diagnosis and management of routine major ophthalmic procedures. Such procedures include enucleations, strabismus surgery, and uncomplicated cataract extractions. During the second year of training, the resident is exposed to various disciplines closely aligned with ophthalmology such as neuro-ophthalmology, ophthalmic pathology, and pediatric ophthalmology. A four month rotation through the ophthalmic surgical service at the Bishop Clarkson Memorial Hospital provides an introduction to ophthalmic surgery. Here the resident scrubs with a variety of staff surgeons and is exposed to many different surgical approaches to various problems.

Third Year: Four months of the senior year in the ophthalmology residency program is spent as Chief Resident at the University Hospital, four months as Chief Resident at the Omaha Veterans Administration Hospital and four months as Chief Resident at Creighton University Health Clinic. At the University Hospital, the Chief Resident is directly responsible for the operation of the clinics and the well-being of the inpatients on the ophthalmology service. He is also active in supervising the first and second year residents and confirming their diagnosis. The senior resident performs most of the major ophthalmic surgical procedures at the University, Veterans Administration and St. Joseph's Hospitals. The Chief is also responsible for answering all requests for consultations from other services at all major teaching hospitals. During the course of three years of residency a total of 200 to 300 major surgical procedures will be performed.

ORTHOPAEDIC SURGERY AND REHABILITATION

PROFESSOR John F. Connolly (Chairman), M.D. 1961 New Jersey; **ASSOCIATE PROFESSORS** O. Max Jardon, M.D. 1957 Nebr., Louis Lippiello, Ph.D. 1973 Cornell; **ASSISTANT PROFESSORS** Dennis A. Chakkalakal, Ph.D. 1969 Wash. Univ. (St. Louis), Walter W. Huurman, M.D. 1962 Northwestern, W. Michael Walsh, M.D. 1971 Tulane; **INSTRUCTOR** Thomas P. Ferlic, M.D. 1975 Creighton; **VOLUNTEER FACULTY: PROFESSOR** Leo T. Hood, M.D. 1946 Nebr.; **ASSOCIATE PROFESSORS** Stanley M. Bach, M.D. 1941 Nebr., Dwight W. Burney, Jr., M.D. 1943 Nebr., Douglas O. DeShazer, D.D.S. 1956 Marquette, M.S. 1961 Iowa, James W. Dinsmore, M.D. 1954 Nebr., William R. Hamsa, Jr., M.D. 1958 Nebr., David W. Minard, M.D. 1956 Nebr., Richard C. Pitner, M.D. 1960 Nebr., James R. Scott-Miller, M.D. 1954 Nebr., Richard D. Smith, M.D. 1943 Nebr.; **ASSISTANT PROFESSORS** Thomas C. Bush, M.D. 1964 Nebr., Robert M. Cochran II, M.D. 1971 Nebr., David N. Kettleson, M.D. 1964 Minn., Michael T. O'Neil, M.D. 1963 Nebr., Frank P. Stone, M.D. 1943 Nebr., James K. Styner, M.D. 1965 Calif. at Irvine, John G. Yost, M.D. 1947 Nebr.; **CLINICAL ASSISTANT INSTRUCTORS** Samar K. Ray, M.B.B.S. 1964 Calcutta (India), Ronald O. Schwab, M.D. 1975 Nebr., Chester H. Waters III, M.D. 1975 Nebr., Howard R. Woodward, M.D. 1973 Northwestern, John C. Yeakley, M.D. 1971 Nebr.; **INSTRUCTOR** Bradley C. Rosenberger, B.S. 1975 New York.

ORTHOPAEDIC SURGERY SERVICES

Hospital, University of Nebraska, Chief, John F. Connolly
Section of Fractures and Adult Reconstructive Surgery, John F. Connolly,
O. Max Jardon
Section of Children's Orthopaedics, Director Walter W. Huurman
Section of Hand Surgery, Thomas P. Ferlic
Section of Sports Medicine, Director W. Michael Walsh

Section of Orthopaedic Research, Director Louis Lippiello; Dennis Chakkalakal Hospital, Veterans Administration (Omaha), Chief, John F. Connolly Hospital, Veterans Administration (Lincoln), Chief, Ronald O. Schwab Hospital, Bishop Clarkson Memorial, Chief, Dwight W. Burney, Jr. Hospital, Children's Memorial, Chief, Stanley M. Bach Hospital, Nebraska Methodist, Chief, L. Thomas Hood

Orthopaedic surgery deals with the diseases, deformities, and injuries of the structures composing the musculoskeletal system.

ORTHOPAEDIC SURGERY—48

722 Orthopaedic Wards and Clinic Elective

Periods Offered: Each 4 weeks

Student Limit: 12

Semester Hours: 4

This elective is intended as an introduction to clinical orthopaedics which will allow the student to appreciate the scope of orthopaedic surgery and rehabilitation as well as some of the problems that commonly are associated with musculoskeletal injuries and diseases. The clinical clerk is expected to participate actively in the workup and care of both inpatients and outpatients. Objectives of the course are outlined and emphasized at the beginning of the elective and the student's attainment of these objectives are demonstrated by oral and written examination at the end of the rotation.

724 Orthopaedic Sports Medicine

Periods Offered: Each 4 weeks

Student Limit: 2

Semester Hours: 4

Prerequisite: Orthopaedic Ward and Clinic Elective (722)

The purpose of this rotation is to provide the student with the opportunity to learn how to evaluate and manage sports injuries and related medical problems. It will be coordinated with University of Nebraska at Omaha athletic programs. Both UNO athletic training facilities and the UNMC orthopaedic clinic will be utilized.

762 Off-Campus Orthopaedic Surgery Elective

Periods Offered: Each 4 weeks

Student Limit: By arrangement

Semester Hours: 4

Prerequisite: Orthopaedic Ward & Clinic Elective (722)

Orthopaedic clerkships in University-affiliated teaching hospitals or approved private orthopaedic offices elsewhere may be elected. The objectives of this elective are outlined and emphasized by the UNMC Department of Orthopaedic Surgery and Rehabilitation at the beginning of the elective. The student's attainment of these objectives must be demonstrated by an oral examination at the end of the rotation, to be taken at the University Medical Center.

772 Orthopaedic Surgery Residency

The program is a five year residency which meets the requirements for Board eligibility. In most instances, applicants are accepted directly out of medical school but openings are available for individuals who have completed preliminary 1-2 years of postgraduate training.

The Department of Orthopaedics uses the facilities of the University Hospital, the Omaha and Lincoln Veterans Administration Hospitals, Clarkson and Methodist Hospitals. Additional rotations are periodically available for residents at Creighton-St. Joseph's Hospital. During these years the resident is given an opportunity to progressively increase responsibility to administer and direct both the general orthopaedic services at these hospitals and the specialty services such as Sports Medicine, Hand Surgery and Children's Orthopaedics. This allows exposure to the full gamut of orthopaedic medical, surgical and rehabilitative problems.

The residents are encouraged to begin an independent research program in either the clinical or basic science area. Laboratory facilities as well as help and support from the full-time faculty are always available. In addition, teaching seminars are scheduled on a regular basis throughout the year. These include conferences in pathology, biochemistry and physiology of bone, anatomy, biomechanics and biomaterials, particularly as they are related to orthopaedics.

799 Research in Orthopaedic Surgery

Periods Offered: Each 8 weeks

Student Limit: 2

Semester Hours: 8

The objective of this elective is to allow selected students an opportunity for concentrated periods of research in musculoskeletal problems. The student will work with

faculty in areas of their research interests which include electrical bone growth stimulation, fracture healing, arthritis, malignant hyperthermia, epiphyseal injuries and microvascular surgery. Both clinical and research opportunities are available as well as well-equipped laboratory facilities and technical assistance. Some clinical experience may also be gained during this time, particularly if applied to the research project.

The student will be required to complete the research project and present results at the department's monthly Grand Rounds. Grades will be based on the research effort as well as the presentation of results.

OTOLARYNGOLOGY

PROFESSOR Anthony J. Yonkers (Chairman), M.D. 1963 Mich.; **ASSOCIATE PROFESSORS** William S. Carter, M.D. 1960 Nebr., Robert E. Lovgren, M.D. 1939 Nebr., Alan J. Nissen, M.D. 1977 Nebr.; **ASSISTANT PROFESSORS** William L. Beck, M.D. 1958 Nebr., Wallace E. Duff, M.D. 1968 Nebr., Kent R. Eakins, M.D. 1967 Nebr., Robert L. Ferrell, M.D. 1965 W. Vir., Donovan B. Foote, Jr., M.D. 1961 Nebr., Barbara B. Heywood, M.D. 1973 Nebr., L. Thomas Heywood, Jr., M.D. 1975 Nebr., Michael F. Jones, M.D. 1970 Iowa, Louis Kleager, M.D. 1977 Nebr., Gerald B. Simons, M.D. 1974 Nebr., Dudley A. Syre, M.D. 1971 Nebr.; **ASSOCIATE** Raymond O. Gillies, M.D. 1945 Nebr.; **CLINICAL INSTRUCTORS** Deborah Adkins, M.D. 1971 Nebr., Michael N. Crawford, M.D. 1975 Nebr., Toni M. Ganzel, M.D. 1978 Nebr., Michael C. Scruggs, M.D. 1975 Boman Gray, Richard A. Stemm, M.D. 1977 Nebr.; **EMERITUS** J. Allan Davis, M.D. 1946 Nebr., John C. Davis, Jr., M.D..

OTOLARYNGOLOGY-HEAD AND NECK SURGERY—52

720 Otorhinolaryngology Clerkship

Periods Offered: Each 4 weeks

Student Limit: 4 at UNH, 2 at BCMH with Drs. Carter & Duff; by arrangement

Semester Hours: 4

The student is involved closely with all facets of otorhinolaryngology, gaining a view of the scope of this field. Evaluation of patients, diagnostic considerations and management approaches are emphasized. The student will participate in all the activities of the department, including clinical responsibilities, operations, and formal teaching exercises.

760 Off-Campus Elective

Periods Offered: By arrangement

Student Limit: By arrangement

Semester Hours: 4

Clerkships at the Veterans Administration Hospital in Omaha or with some of the private practitioners in the Omaha-Lincoln area. By individual approval only.

772 Core Residency in Otorhinolaryngology

This five year program requires one year of approved surgical residency and four years of Otolaryngology residency and graduation from approved medical school. This is the standard residency program which prepares the resident for examination by the American Board of Otorhinolaryngology. This program is described in the department literature on residency training.

799 Fellowship in Otorhinolaryngology

Designed to support the research interests of a student in any area related to otorhinolaryngology. Eligibility for, and acceptance to, this program, by arrangement with the Chairman of the Department.

PATHOLOGY & LABORATORY MEDICINE

PROFESSORS David T. Purtilo (Chairman), M.D. 1967 Northwestern, William M. Berton, M.D. 1949 Calif., Samuel M. Cohen, M.D., Ph.D. 1972 Wisconsin, Arthur L. Larsen, M.D. 1955 Nebraska, Clarence A. McWhorter, M.D. 1944 Nebraska; **PROFESSORS EMERITUS** Horace K. Giffen, M.D., James P. Tollman, M.D., Richard B. Wilson, M.D., 1945 Nebr.; **ASSOCIATE PROFESSORS** Jerry W. Jones, M.D. 1958 Cincinnati, Arden E. Larsen, Ph.D. 1970 Nebraska, James R. Newland, M.D. 1965 Nebraska; **ASSISTANT PROFESSORS** Mary C. Haven, M.S. 1964 Creighton, Marion R. Hicks, M.S. 1957 Ohio State, Donald R. Johnson, Ph.D. 1977 Illinois, Ernest J. Kiser, Ph.D. 1975 Oregon, Carl W. Ludvigsen, M.D., Ph.D. 1980 Wash., Bruce M. McManus, M.D., Ph.D. 1977 Saskatchewan, P. Michael Olmstead, M.D., 1968 Geo. Washington, Robert M. Shuman, M.D. 1968 Stanford, David J. Volsky, Ph.D. 1979 Hebrew University of Jerusalem; **ASSOCIATE PROFESSORS-COURTESY** Kashinath D. Patil, Ph.D. 1971 Washington, William G. Sprague, D.D.S. 1947 Western Reserve; **CLINICAL PROFESSORS** Jerald Schenken, M.D. 1958 Tulane, Milton Simons, M.D. 1947 Nebraska, Donald P. Skoog, M.D. 1958 Nebraska; **CLINICAL ASSOCIATE PROFESSORS** Earl Greene, M.D. 1952

Nebraska, Morton H. Kulesh, M.D. 1945 Iowa, Joe L. Auchmoedy, M.D. 1968 Nebraska, Lloyd L. Barta, M.D. 1946 Nebraska, Francis C. Coleman, M.D. 1941 Tulane, Donald A. Dynek, M.D. 1965 Nebraska, John M. Grier, M.D. 1961 Nebraska, Roger A. Gunn, M.D. 1972 Nebraska, Marc R. Hapke, M.D. 1971 Illinois, Alfred Hartmann, M.D. 1968 Nebraska, Orin R. Hayes, 1952 Nebraska, Blaine Y. Roffman, M.D. 1961 Nebraska; **CLINICAL ASSISTANT PROFESSORS** Marietta Henry, M.D. 1967 Indiana, Gene N. Herbek, M.D. 1975 Nebraska, Robert L. Kruger, M.D. 1959 Michigan, Martin R. Lohff, M.D. 1961 Nebraska, Wayne Markus, M.D. 1969 Nebraska, Gerald L. Morris, M.D. 1964 Nebraska, Stephen M. Nielsen, M.D. 1969 Nebraska, Daniel R. Olson, M.D. 1966 Nebraska, Joseph S. Pennepacker, M.D. 1945 Boston, Joseph M. Rapoport, M.D. 1973 Nebraska, Andrew G. Rasmussen, M.D. 1973 Nebraska, Richard G. Runge, M.D. 1970 Iowa, John W. Scott, M.D. 1955 Nebraska, Robert F. Shapiro, M.D. 1965 Nebraska, Edgar H. Smith, M.D. 1958 Nebraska, Won Tai Sohn, M.D. 1945 Severance Union (Korea), Milton N. Stastny, M.D. 1961 Nebraska, Thomas L. Williams, M.D. 1974 Nebraska; **COURTESY PROFESSOR** Harry W. McFadden, M.D. 1941 Nebr.

The teaching goal of the Department of Pathology and Laboratory Medicine is to provide a learning environment in which the medical student may become familiar with and acquire a working knowledge of the etiology, the pathogenesis, the pathologic physiology and morphologic consequences of human disease.

PATHOLOGY—56

620 General Pathology I (5 s h cr) (820G)

Prerequisite: Human Gross Anatomy, Histology, Neuroanatomy, Embryology, Cellular and Systems Biochemistry (Medical), and Medical Physiology Parts I and II.

Initial emphasis in this course is on cellular and reactions of tissues to injury. The etiology and pathogenesis of major disease is stressed. Concepts and principles of cellular and tissue reactions are then extended to the study of human disease by organ systems. In the systemic approach, specific correlations with morphologic reactions to injury are emphasized with integration of additional basic science data pertinent to etiology, pathogenesis and prognosis of specific disease. Instruction is by lecture, illustrated demonstrations and laboratory participation in autopsies, and regularly scheduled Small Group Discussion periods. The Small Group Discussions are designed to emphasize the case study approach to the understanding of diseases.

621 General Pathology II (5 s h cr) (821G)

Prerequisite: General Pathology I 620

The study of human disease by systems is continued. The case study approach is strongly emphasized. Clinical pathologic correlation is regularly introduced through the continuation of Small Group Discussion periods, these are scheduled to correlate with and to expand the content of formal lectures. Continued introduction of material from other basic sciences is our instructional strategy. Where appropriate, members of other basic science departments and/or of the Clinical Teaching Staff are asked to contribute. Again the instruction is largely by lectures, illustrated demonstrations and laboratory, and through regularly scheduled Small Group Discussion periods.

622 Clinical Pathology (5 s h cr) (822G)

Prerequisite: General Pathology I (820G), General Pathology II (821G)

The course in Clinical Pathology emphasizes the basic rationale (scientific, medical and technical) for the selection and interpretation of laboratory tests necessary to the practice of medicine. The format includes lectures, demonstrations, and Small Group Discussions. Content is correlated with that of both general Pathology I 620M (820G) and II 621M (821G).

702 Forensic Pathology

Prerequisite: General Pathology I 620, General Pathology II 621

Forensic Pathology essentially addresses all aspects of legal medicine with special emphasis on the contribution of the pathologist.

720 Pathologic Anatomy

Periods Offered: Every 4 weeks

Student Limit: By arrangement

Semester Hours: 4

Prerequisite: General Pathology I 620, General Pathology II 621

The Department of Pathology provides students the opportunity to pursue in greater depth, the pathologic anatomy of disease, utilizing a variety of modes and emphasizing structural abnormalities. This course is based largely in Surgical and Autopsy Pathology. Students are assigned to individual staff members by arrangement. This period may be integrated in part with Clinical Pathology 722 by arrangement.

722 Clinical Pathology and Laboratory Medicine

Periods Offered: Every 4 weeks

Student Limit: By arrangement, 1-2 students in each specialty at one time.

Semester Hours: 4

Prerequisite: General Pathology I 620, General Pathology II 621,
Clinical Pathology 622

The Department of Pathology and Laboratory Medicine provides opportunities for students to study laboratory medicine, by subspecialty, within the diagnostic laboratory. These studies are designed to expand the student's understanding of the relationship of diseases to interpretable functional abnormalities. Experience in the following clinical laboratory subspecialties are available: Clinical Chemistry, Blood Banking, Hematology, Microbiology, Immunology and Special Clinical Chemistry. Individual students are assigned to staff members with specific interests in one or more of these specialty areas. In-depth correlation and appropriate interpretation of clinical laboratory data is stressed. By arrangement, a student may elect to spend a part of one four week period in Pathologic Anatomy 720 in order to better correlate structural and functional abnormalities.

760 Off-Campus Elective

Periods Offered: Every 4 weeks

Student Limit: By arrangement

Semester Hours: 4

Prerequisite: General Pathology I 620, General Pathology II 621,
Clinical Pathology 622

Approved clerkships in University or teaching hospitals elsewhere may be individually arranged. Approval by the Chairman of the Department of Pathology and Laboratory Medicine and other concerned parties is mandatory.

774 Pathology Residency

Prerequisite: General Pathology I 620, General Pathology II 621,
Clinical Pathology 622

This is a full-time four year program of assignments in Pathologic Anatomy and in Clinical Pathology designed to fulfill the requirements of the American Board of Pathology for individual certification in Clinical Pathology. Study is divided into 3 month rotating periods in Clinical Pathology and its various components such as Hematology, Immunohematology, Microbiology, Clinical Chemistry, Autopsy Pathology and Cytology. If the individual so desires and it is acceptable to the Director, twelve months of this four-year residency may be spent in research or other special training in immunopathology, neuropathology, nephropathology, experimental carcinogenesis, etc.

799 Special Problems and Research (4 weeks)

Prerequisite: General Pathology I 620, General Pathology II 621,
Clinical Pathology 622

The student interested in investigative and/or special problems in Pathology is encouraged to discuss available opportunities with appropriate faculty. Major investigations are ongoing in Oncology, Virology, Immunology, Chemistry and Molecular Biology.

PEDIATRICS

PROFESSORS Carol R. Angle (Chairman), M.D. 1951 Cornell, Rashid A. Al-Rashid, M.D. 1960 American Beirut, Paul K. Mooring, M.D. 1957 Columbia, Paul Pearson, M.D. 1947 Chicago, John F. Simon, Jr., D.D.S. 1964 Mo. (Kansas City), M.S.D. 1966 Wash., Hobart E. Wiltse, M.D. 1958, Ph.D. 1965 Nebr.; **ASSOCIATE PROFESSORS** Bruce A. Buehler, M.D. 1970 Fla., Louise F. Eaton, M.D. 1945 Indiana, Philip J. Hofschire, M.D. 1966 Nebr., Yoshio Miyazaki, M.D. 1962 Hahnmann, Robert M. Nelson, Jr., M.D. 1970 Wash., Samuel H. Perry, M.D. 1947 Nebr., E. Jack Trembath, M.D. 1951 Melbourne (Victoria, Australia), Jon A. Vanderhoof, M.D. 1972 Nebr.; **ASSISTANT PROFESSORS** Dean Antonson, M.D. 1974 Nebr., Peter W. Bickers, M.D. 1968 Duke, David L. Bolam, M.D. 1970 Nebr., John L. Colombo, M.D. 1975 Nebr., John P. Cheatham, M.D. 1976 Okla., Carol A. Huseman, M.D. 1971 Cincinnati, William Hyde, M.D. 1975 Nebr., Roger Kobayashi, M.D. 1975 Nebr., John D. Kugler, M.D. 1974 Nebr., John B. Moeschler, M.D. 1975 Nebr., William W. Pinsky, M.D. 1973 St. Louis, Warren G. Sanger, Ph.D. 1974 Nebr..

The aim of this department is to develop in the student an understanding of human growth and development as well as the diseases characteristic of infancy, childhood and adolescence. This is done through small group bedside conferences and seminars, clinical clerkship at the University Hospital and the Children's Memorial Hospital, and the outpatient service at the University Hospital. Special orientation and training in rehabilitation are given at the C. Louis Meyer Childrens Rehabilitation Institute.

PEDIATRICS—60

706 Comprehensive General Pediatrics I

Periods Offered: Each 4 weeks

Student Limit: 18 total for COMP GEN PED I and COMP GEN PED II combined during any month, no separate limits for the two units.

Semester Hours: 4

707 Comprehensive General Pediatrics II

Periods Offered: Each 4 weeks

Student Limit: 18 total for COMP GEN PED I and COMP GEN PED II combined during any month, no separate limits for the two units.

Semester Hours: 4

Comprehensive General Pediatrics consists of (4 weeks each) ambulatory pediatric experience with primary-care emphasis and experience at Children's Hospital. Prior to beginning the COMP GEN PED Units, students will have an opportunity to indicate choices of specialty and continuity clinics, well newborn nursery, Children's Rehabilitation Institute, Preventive Care Clinic, and one or more afternoons per week in offices of pediatricians in private practice. Throughout COMP GEN PED I and COMP GEN PED II, attendance will be expected in an intensive didactic course which meets daily, covering major topics in clinical pediatrics and requiring 3-4 daily hours of preparation time.

708 Problems in Clinical Pediatrics I

Periods Offered: Each 4 weeks

Student Limit: 9

Semester Hours: 4

This course consists of inpatient, largely specialized pediatric experience at University Hospital only. Emphasis is upon independent, supervised problem-solving experience and development of diagnostic skills. There are no core lectures but a variety of case-related conferences.

709 Problems in Clinical Pediatrics II

Periods Offered: Each 4 weeks

Student Limit: 0-8 depending upon openings

Semester Hours: 4

This course is an option available to students who wish to continue, and build upon, the problem-solving experience of PROB CLIN PED I within a specialized area of pediatrics. A student who wishes to exercise this option should reserve a slot in one of six available electives (neonatology, cardiology, hematology, endocrinology, metabolism-genetics, gastroenterology) and register for this as PROB CLIN PED II. Students interested in this option should discuss it with the clerkship coordinator prior to registration.

722 Pediatric Cardiology and Cardiovascular Disease, Mooring, Hofschire, Kugler, Pinsky, Cheatham

Periods Offered: Each 4 weeks

Student Limit: 2

Semester Hours: 4

Prerequisite: Required Pediatric Clerkship or 20-705.

This elective is intended for students desiring to further their knowledge of congenital heart disease and rheumatic fever. It should be especially useful for those who will practice either pediatrics, general practice, or thoracic surgery. Using the excellent clinical material available, the student will become proficient in auscultation and in the diagnosis and management of infants and children with heart disease. The student should become familiar with pediatric electrocardiography and cardiac catheterization. Some time will be spent in observation of heart surgery and the post-operative management of heart surgery patients. Correlate hemodynamic studies with patient history and observation. Become familiar with specialized techniques; electrocardiography, cardiac catheterization, dye dilution and hydrogen curve analysis, phonocardiography, vectorcardiography, apex cardiography, central venous pressure, cardiopulmonary resuscitation. Improve examination skills, especially in auscultation, introduction to ongoing research projects. If interested, work on a senior thesis. Learn systematic approach to radiologic diagnosis of heart and vascular disease in plain films, fluoroscopy, and angiographic studies. Gain an understanding of operations for cardiovascular disease, including open heart surgery and post-operative management.

726 Pediatric Hematology and Oncology, Al-Rashid

Periods Offered: Each 4 weeks

Student Limit: 1

Semester Hours: 4

Prerequisite: Pediatric Clerkship or 20-705

The student will see patients with hematological diseases in the Jahr Pavilion and Newborn Nursery with the staff hematologist. Also the student will work up all new patients seen in the outpatient Pediatric Hematology Clinic. An average of 8-10 patients are seen every Friday afternoon. Bone marrow sessions and seminars in hematological disease are held on a weekly basis. Opportunity for research work, clinical or laboratory, is available for students spending more than 10 weeks on the service. In addition to hematological disorders, the student will gain experience in tumors in children, chemotherapy, and exchange transfusion.

727 Human Cytogenetics, Sanger

Periods Offered: Each 4 weeks

Student Limit: 1

Semester Hours: 4

Prerequisite: Pediatric Clerkship or 20-705, and medical school course in Human or Medical Genetics; *Permission from Dr. Sanger before registration.*

To familiarize students with laboratory techniques in human cytogenetics. Course content includes techniques and applications of sex chromatin preparations, short- and long-term tissue cultures, chromosome preparation, and karyotype analysis. Correlations with clinical cases.

728 Neonatology, Bolam, Nelson, Hyde

Periods Offered: Each 4 weeks

Student Limit: 4

Semester Hours: 4

Prerequisite: Pediatric Clerkship or 20-705

The student will serve as the Nursery House Officer under the supervision of the staff neonatologist. This will include clinical responsibility for all newborns, day and night. There are 100-200 deliveries per month, including 20-40 "risk" deliveries.

729 Pediatric Endocrinology, Huseman

Periods Offered: Each 4 weeks

Student Limit: 2

Semester Hours: 4

Prerequisite: Pediatric Clerkship or 20-705

This elective provides the student with experience in diagnostic problems of growth, pubertal development, thyroid dysfunction, and adrenal disorders in both inpatient and outpatient settings. Further experiences can be gained in disturbances of carbohydrate metabolism. This student will be responsible for the daily care of inpatients, endocrine consultations, and implementation of tolerance tests with the supervision of the staff.

730 Pediatric Gastroenterology, Vanderhoof, Antonson

Periods Offered: Each 4 weeks

Student Limit: 2

Semester Hours: 4

Prerequisite: Pediatric Clerkship and 20-705

The student will 1) become broadly familiar with gastrointestinal pathophysiology in infants, children, and adolescents, 2) assist in evaluation of patients with gastrointestinal, hepatobiliary, and nutritional disorders, 3) participate in gastrointestinal conferences and seminars twice weekly, 4) observe a variety of gastrointestinal procedures, and 5) gain some expertise in interpretation of gastro-intestinal histopathology.

731 Metabolic Disease and Genetics, Wiltse, Buehler

Periods Offered: Each 4 weeks

Student Limit: 1

Semester Hours: 4

Prerequisite: Pediatric Clerkship or 20-705

The student will be helped to develop skills in diagnosing, managing, and counseling patients with inherited and acquired disorders of metabolism and genetic defects. Familiarity can be gained with basic techniques in the genetics laboratory, and participating in genetic counseling is encouraged. Topics of particular interest to the student will be discussed in individual conferences.

732 Pediatric Pulmonary Disease (including allergy and cystic fibrosis), Colombo, Kobayashi

Periods Offered: Each 4 weeks

Student Limit: 2

Semester Hours: 4

Prerequisite: Basic Pediatric Clerkship or 20-705

The pediatric allergy clinic meets two half-days in which the student, under the supervision of the staff, evaluates and investigates new allergy patients with appropriate history, physical and skin testing procedures. Experience is obtained in the prescription of allergy hyposensitization extracts and in management of the desensitization course. Experience also is obtained in treatment of allergic emergencies such as acute asthma. The cystic fibrosis clinic meets two half-days a week and here the physician examines and follows children in all stages of this chronic and ultimately fatal pulmonary disease. There are opportunities to learn how to perform sweat tests and basic pulmonary function tests. Other pediatric chest diseases cared for include those children who have or have not had tuberculosis and need appropriate follow-up care. Daily ward rounds would be made with the staff on all those patients in the hospital with pulmonary disease. Within this elective there is the possibility of spending additional time in a private allergist's office.

734 Nephrology, Angle

This elective will center on a clinical research project in pediatric renal disease to be designed by the student and Dr. Angle and usually employing clinical studies carried out in the Pediatric Renal Clinic and Inpatient Service. In addition, the students will function as fellows in pediatric nephrology in the Renal Clinic and Inpatient and Intensive Care Unit.

736 Developmental Pediatric Practicum, Trembath

Periods Offered: Each 4 weeks

Student Limit: 1

Semester Hours: 4

Prerequisite: Basic Pediatric Clerkship

The student will assist and participate with the medical staff in the diagnosis, evaluation, and programming of children presenting significant developmental delays at Meyer Children's Rehabilitation Institute. An office practice format will be followed, and a schedule will be developed for each student to reflect individual interests and needs. Opportunity will be given to observe and participate in evaluations and therapies provided by other disciplines in the institute, such as psychology, speech pathology, physical therapy, occupational therapy, special education, vocational rehabilitation, and dentistry. The student will receive experience in the use of diagnostic screening techniques such as the Milani Comparetti Motor Development Screening Test and the Denver Developmental Screening Test. Students will participate in one or two State Services for Crippled Children clinics at the institute, and with care of inpatients at Hattie B. Munroe Pavilion. About seven complete evaluations are carried out each week and there are over 700 treatments a month in a variety of programs for children with developmental problems.

760 General Pediatric Preceptorship

Periods Offered: Each 4 weeks

Student Limit: By arrangement only

Semester Hours: 4

Pediatricians throughout the state and particularly those who are members of Nebraska Pediatric Society, have expressed an interest in having medical students spend four or more weeks with them in their private office.

764 Pediatrics Off-Campus Elective with University Affiliation

Periods Offered: Each 4 weeks

Student Limit: None

Semester Hours: 4

Senior students may request credit for any off-campus program which offers unusual opportunities in clinical or investigative pediatrics. Advance approval from the department is required.

766 Pediatric Off-Campus Elective in a Non-University Location

Periods Offered: Each 4 weeks

Student Limit: None

Semester Hours: 4

Same as 60-764 only regarding non-affiliated hospitals.

770 Clinical Genetics, Sanger

Course contents and areas of study are: 1) An introduction to the field of medical genetics, 2) mitosis and meiosis, 3) human cytogenetics, 4) genes and man, and 5) genetic counseling.

772 Pediatric Graduate Education

This three-year full-time program involves clinical and research experience in all core aspects of the pediatric specialty which relate to a career in either pediatric practice or general academic and research pediatric pursuits. Correlation of the basic sciences of embryology, biochemistry, physiology, microbiology, ophthalmology and pathology is a structured component of the course.

774 Pediatric Fellowship Graduate Education

This course is limited to students who have completed at least two years of course 772. In-depth subspecialty pediatric education geared toward practice, academic, and research careers are available in the following:

- (a) Allergy and Chest
- (b) Cardiology
- (c) Cystic Fibrosis and Diabetes
- (d) Endocrinology and Metabolism
- (e) Genetics
- (f) Hematology
- (g) Multiple Handicapped Children
- (h) Neurology

- (i) Newborn Medicine
- (j) Renology
- (k) Radiology
- (l) Infectious Disease
- (m) Psychology
- (n) Pediatric Neurology

796 Pediatric Research, Staff

Periods Offered: Each 4 weeks

Student Limit: By arrangement

Semester Hours: 4

Prerequisite: By arrangement

A student interested in participating in an ongoing active research area within the Department of Pediatrics may arrange with the appropriate faculty to devote an elective month to laboratory investigation. By registering for the Pediatric Research elective and a related clinical subspecialty elective in consecutive months, the student could arrange a flexible program providing simultaneously enrolling for a graduate level course in a related basic science subject.

799 Fellowship in Cardiovascular Research, Mooring

This elective is intended to provide assistance and supervision to a student interested in research in cardiology. Funds may be available for support.

PHARMACOLOGY

PROFESSORS Manuchair Ebadi (Chairman), Ph.D. 1967 Mo., William O. Berndt, Ph.D. 1959 N.Y.; **ASSOCIATE PROFESSORS** Carl F. Gessert, Ph.D. 1955 Wisc., Terry D. Hexum, Ph.D. 1968 Kansas, Thomas E. Donnelly, Ph.D. 1972 Yale, Jean D. Deupree, Ph.D. 1970 Mich. State, Walter N. Piper, Ph.D. 1969 Purdue, Eric M. Scholar, Ph.D. 1967 Ill.; **ASSISTANT PROFESSORS** L. Charles Murrin, Ph.D. 1975 Yale, Ronald F. Pfeiffer, M.D. 1973 Nebr., Charles W. Mackenzie III, Ph.D. 1975 Southern Calif..

PHARMACOLOGY—66

307 Pharmacology for Physicians Assistants (4 s hr cr, W), Staff

Course director Gessert

The course is intended to provide the students with basic information in all of the major areas of pharmacology, including general principles, pharmacokinetics, drug interactions, chemotherapy, toxicology, and the pharmacology of the autonomic and central nervous systems, and the cardiovascular, renal, gastrointestinal, and endocrine systems.

319 Pharmacology for Physical Therapists (1 s hr cr, W), Staff

Course director Deupree

A brief survey of all aspects of pharmacology is presented with special attention to those drugs which will alter physical therapy technique and to physical therapy technique which will alter drug therapy.

Pharmacology Courses No. 810-823, Course director Ebadi

610 or 810 Pharmacokinetics (1 s hr cr, F), Staff

611 or 811 Neuro-psychopharmacology (2 s hr cr, F), Staff

612 or 812 Systems Pharmacology I (2 s hr cr, W), Staff

613 or 813 Systems Pharmacology II (2 s hr cr, W), Staff

The four lecture courses (total 7 s hr cr) listed above (610, 611, 612, and 613 or 810, 811, 812, and 813) together cover all aspects of basic medical pharmacology, including the following: General principles and pharmacokinetics; drug actions on the central, peripheral, and autonomic nervous systems and on cardiovascular, renal, gastrointestinal and metabolic functions; chemotherapy of infectious diseases and neoplasia; toxicology; misuse of drugs.

623 or 823 Clinical Pharmacology (1 s hr cr, F, W), Pfeiffer

The application of basic pharmacological concepts in the rational clinical use of drugs in the prevention, diagnosis and treatment of human diseases.

628 Developmental Pharmacology, Murrin

Periods Offered: Winter

Student Limit: Minimum of 5

Semester Hours: 1

Prerequisites: Medical Pharmacology 610, 611, 612, 613, and 623 or consent of instructor

Physiological and biochemical changes that influence drug metabolism from prenatal to adolescent periods.

- 629 Mechanisms of Toxicity**, Berndt, Piper
 Periods Offered: Winter
 Student Limit: Minimum of 5
 Semester Hours: 1
 Prerequisites: Medical Pharmacology 610, 611, 612, 613, and 623 or consent of instructor
 Discussion of the molecular mechanisms involved in the toxicity of therapeutic agents, poisons, and environmental pollutants.
- 632 Biogenic Amines in Health and Disease**, Ebadi, Hexum, Murrin, Pfeiffer
 Periods Offered: Winter
 Student Limit: Minimum of 5
 Semester Hours: 1
 Prerequisites: Medical Pharmacology 610, 611, 612, 613, and 623 or consent of instructor
 Diseases in which over- or under-production of specific amines play a prominent role in abnormal organ function.
- 633 Antinfective Drugs**, Scholar
 Periods Offered: Winter
 Student Limit: Minimum of 5
 Semester Hours: 1
 Prerequisites: Medical Pharmacology 610, 611, 612, 613, and 623 or consent of instructor
 Actions, indications, pharmacokinetics, mechanisms, and adverse effects of antibiotics and synthetic chemotherapeutic agents used in infectious diseases.
- 634 Cancer Chemotherapy**, Scholar
 Periods Offered: Winter
 Student Limit: Minimum of 5
 Semester Hours: 1
 Prerequisites: Medical Pharmacology 610, 611, 612, 613, and 623 or consent of instructor
 Indications for and mechanisms of action of antineoplastic agents currently used and those which are under development and investigation.
- 635 Role of Cyclic Nucleotides in Hormone Actions**, Donnelly and Mackenzie
 Periods Offered: Fall
 Student Limit: Minimum of 5
 Semester Hours: 2
 Prerequisites: Medical Pharmacology 610, 611, 612, 613, and 623 or consent of instructor
 The molecular mechanisms involving Cyclic AMP and Cyclic GMP in modulating the actions of various hormones and drugs used in pharmacology.
- 705 Molecular Pharmacology**, Donnelly and Staff
 Periods Offered: Winter
 Student Limit: Minimum of 5
 Semester Hours: 2-3
 Prerequisites: Medical Pharmacology 610, 611, 612, 613, and 623 or consent of instructor
 An extensive treatment of the principles of drug action as the basis of pharmacology.
- 721 Advanced Pharmacology of the Autonomic Nervous System**, Hexum and Staff
 Periods Offered: Winter
 Student Limit: Minimum of 5
 Semester Hours: 2
 Prerequisites: Medical Pharmacology 610, 611, 612, 613, and 623 or consent of instructor
 The effects of drugs on the autonomic nervous system with emphasis on receptor interactions, events in transmission and specific drug effects.
- 725 Biochemical Properties of General Anesthetics, Sedatives and Hypnotics**, Deupree
 Periods Offered: Fall
 Student Limit: Minimum of 5
 Semester Hours: 2
 Prerequisites: Medical Pharmacology 610, 611, 612, 613, and 623 or consent of instructor
 Current theories of pharmacological effects of anesthetics, sedatives, and hypnotics.
- 735 Advanced Neuropsychopharmacology**, Murrin
 Periods Offered: Winter
 Student Limit: Minimum of 5
 Semester Hours: 2

Prerequisites: Medical Pharmacology 610, 611, 612, 613, and 623 or consent of instructor

Study of the effects and side effects of neuropsychopharmacological agents.

760 Off-Campus Pharmacology Electives or Clerkships, Ebadi

Periods Offered: Open

Student Limit: By individual approval only

Semester Hours: Arranged

Prerequisites: Medical Pharmacology 610, 611, 612, 613, and 623 or consent with instructor

Pharmacology research electives in universities or research institutes or clerkship in clinical pharmacology in teaching hospitals or medical centers elsewhere.

Additional Courses in Pharmacology:

Flexible studies in pharmacology (1 semester hour each) are provided to offer medical students additional opportunities to further pursue in-depth experiences in pharmacology beyond those obtained from the courses listed above. Research opportunities in select areas of pharmacology will also be made available. These research experiences may be provided on a short-(8 week) or a long-term (18 months) basis.

In certain areas it may be desirable for a student to make arrangements to study a specific problem with guidance from both a clinical faculty and a staff member of the Department of Pharmacology. Every attempt will be made by the faculty of the Department of Pharmacology to integrate the information to be presented with the appropriate faculty of the clinical department. In brief, whenever possible, these electives will be designed to remain flexible in nature and commensurate with the career objectives and/or educational background of the students.

PHYSIOLOGY AND BIOPHYSICS

PROFESSORS Joseph P. Gilmore (Chairman), Ph.D. 1963 George Washington, Lawrence A. Bennett, Ph.D. 1933 Chicago, M.D. 1937 Rush (Emeritus), Francis J. Clark, Ph.D. 1964 Purdue, Alastair M. Connell, M.D. 1969 Glasgow, Michael C. Moriarty, Ph.D. 1968 Rochester, Frederick F. Paustian, M.D. 1953 Nebr., Frederick Ware, Ph.D., M.D. 1956 Nebr.; **ASSOCIATE PROFESSORS** Gary T. Campbell, Ph.D. 1972 Northwestern, Eelco D. Gerlings, M.D. 1963, Ph.D. 1966, Amsterdam, William L. Joyner, Ph.D. 1971 No. Carolina, Thomas P. K. Lim, M.D. 1948 Severance Union Medical College Korea, Ph.D. 1953 Northwestern, Michael Mann, Ph.D. 1971 Cornell, Irving H. Zucker, Ph.D. 1972 N. Y. Medical; **ASSISTANT PROFESSORS** William C. Bell, Ph.D. 1975 Pitts., Kurtis G. Cornish, Ph.D. 1977 Bowman Gray, William T. Lipscomb, Ph.D. 1970 Kentucky.

Course 510 in Medical Physiology and Biophysics is required for the degree of Doctor of Medicine. This course provides a widely inclusive study of functional mechanisms within the body. To complement biochemical and morphological studies in other departments, emphasis is placed upon the application of biophysical principles to the understanding and measurement of processes in the body. This medical course includes pathophysiology with illustrative problems from clinical medicine to reinforce the student's understanding of normal function and to prepare the student for the application of physiological and biophysical principles to clinical medicine. Course 510 does not carry graduate credit toward an M.S. or Ph.D. degree; if graduate credit is desired, the student must register for course 810.

Courses in the 600 series are designed as electives carrying credit toward the M.D.. They do not carry graduate credit.

Graduate studies leading to the Ph.D. in Physiology and Biophysics are primarily designed to train students to become competent research scientists, knowledgeable in the major areas of modern physiology and competent to teach at the medical and graduate student level. Course 810 is a part of the core program. Courses in the 800 and 900 series carry graduate credit toward advanced degrees, and by special arrangement with the department, may be taken as electives by medical students, interns or residents. See the Bulletin of the Graduate College for details concerning advanced degree programs.

PHYSIOLOGY AND BIOPHYSICS—68

510 Medical Physiology (Second Sem.) (9 sem. hr.) (810 G)

Lect. Lab, dem. conf.

Initially the processes that regulate the activity of individual cells and organ systems are introduced. Topics covered include membrane physiology of single cells and neurophysiology. Subsequently, consideration is given to cardiovascular, renal, respiratory, gastrointestinal and endocrine physiology. Clinical applications of the material are emphasized.

690 Research Experience in Physiology

Semester Hours: By arrangement

Student Limit: 1-2 per field

Prerequisites: By arrangement

These are planned as tutorial relationships to be arranged with a staff member who will familiarize the student(s) with research techniques and experimental procedures. Students may choose problems in the investigator's laboratory. The student will be expected to spend full time for a full semester or large fraction thereof.

1. Renal
2. Electrophysiology
3. Techniques in Neurophysiology
4. Cardiovascular Physiology
5. Membrane Transport
6. Endocrinology

760 Off Campus Elective

Periods Offered: Each 4 weeks

Student Limit: By arrangement

Semester Hours: 4

PREVENTIVE AND STRESS MEDICINE

PROFESSOR Robert S. Elliot (Chairman), M.D. 1955 Colo.; **ASSOCIATE PROFESSOR** Jimmy M. Salhany, Ph.D. 1974 Chicago; **ASSISTANT PROFESSORS** James C. Buell, M.D. 1966 Nebr., Helen McIlvain, Ph.D. 1977 Kansas State, Mark E. McKinney, Ph.D. 1980 Texas at Arlington, Gordon L. Todd, Ph.D. 1972 Georgia, Hermann Witte, Ph.D. 1972 Ala., Shao Wu, Ph.D. 1972 Kansas State.

The thrust of the Department of Preventive and Stress Medicine to examine the ways in which contemporary lifestyles and behaviors impact on both mental and physical health. The future offerings of the department would include lectures in the pre-clinical curriculum to provide the medical student with awareness and understanding of the relationships between behavior, neuroendocrine activation, environmental influences and pathophysiological and histopathological consequences. Clinical undergraduate curriculum would consist of elective preceptorships with either physicians or psychologists dealing with therapeutic cognitive and behavioral strategies, psychophysiological testing, biofeedback, and behavioral research projects. Post-graduate training electives will be offered in the future to complement the basic training of those in primary care disciplines desiring to spend a certain amount of their clinical training in an area emphasizing behavioral medical approaches.

PSYCHIATRY

PROFESSORS Merrill T. Eaton (Chairman), M.D. 1944 Ind., John A. Aita (Emeritus), M.D. 1937 Iowa, Ph.D. 1944 Minn., George W. Bartholow, M.D. 1955 Iowa, Robert J. Ellingson, Ph.D. 1950 Northwestern, M.D. 1963 Nebr., Frank Menolascino, M.D. 1957 Nebr., William F. Roth, Jr. (Emeritus), M.D. 1929 Yale, Theodore B. Sonderegger, Ph.D. 1965 Nebr., Bulent T. Tunakan, M.D. 1949 Istanbul, Robert S. Wigton (Emeritus), M.D. 1935 Nebr., James G.L. Williams, Ph.D. 1956 Univ. of London, Cecil L. Wittson (Emeritus), M.D. 1931 So. Car.; **RESEARCH PROFESSORS** Michael J. Carver, Ph.D. 1952 Mo., John H. Copenhaver, Ph.D. 1963 Kansas, Williamina A. Himwich (Emeritus), Ph.D. 1939 Iowa State; **CLINICAL ASSOCIATE PROFESSOR** Robert J. Stein (Emeritus), M.D. 1939 Nebr.; **ASSOCIATE PROFESSORS** Jerry L. Authier, Ph.D. 1973 Portland, Reba Ann Benschofer, Ph.D. 1978 Nebr., Kenneth K. Berry, Ph.D. 1964 Texas Christian, William L. Blizek, Ph.D. 1970 Mo., James A. Davis, Jr., M.D. 1968 Nebr., John Y. Donaldson, M.D. 1966 Nebr., Louise F. Eaton, M.D. 1945 Indiana, Paul M. Fine, M.D. 1958 Syracuse, Alan J. Fix, Ph.D. 1970 New York State at Buffalo, Marjorie J. Gedgoud, Ed.D. 1954 Colo., Charles J. Golden, Ph.D. 1975 Hawaii, Ernest A. Haffke, M.D. 1962 Nebr., David K. Kentsmith, M.D. 1965 Nebr., Joseph C. LaVoie, Ph.D. 1970 Wisc., William B. Long, M.D. 1952 Nebr., George J. Lytton, M.D. 1943 Nebr., Robert G. Osborne, II, M.D. 1956 Nebr., Jack A. Stark, Ph.D. 1973 Nebr., Phillip H. Starr, M.D. 1944 Toronto, Fred D. Strider, Ph.D. 1961 Nebr., Donald A. Swanson, M.B.B.C.H. 1965 Witwatersrand (So. Africa), Gwen R. Weber, Ph.D. 1979 Nebr., George A. Young (Emeritus), M.D. 1936 Nebr.; **ASSISTANT PROFESSORS** John D. Baldwin, M.D. 1955 Nebr., Edward T. Beltenman, M.D. 1954 Creighton, Ronald L. Bendorf, M.D. 1962 Nebr., Jane Bottlinger, M.D. 1976 Nebr., Willard C. Brinegar, M.D. 1937 Nebr., Robert Calkins, M.D. 1949 Nebr., Jane B. Dahlke, M.D. 1972 Nebr., Sharon S. Elrod, M.S.W. 1968 Nebr., Jeanette Ettinger, M.D. 1946 Women's Medical, Donna R. Eyde, Ph.D. 1977 Mo., Daniel A. Goggin, M.D. 1973 Tex., David J. Goldberg, M.D. 1966 Buenos Aires, Benjamin Graber, M.D. 1969 Mich., Kay Gustafson, Ph.D. 1975 Mass., Bruce D. Gutnik, M.D. 1972 Mo., Klaus Hartmann, M.D. 1970 Nebr., Howard D. Herrick, M.D. 1956 Nebr., Robert D. Jones, M.D. 1951 Nebr., Kenneth D. Keith, Ph.D. 1975 Nebr., Emmet M. Kenney, M.D. 1959 Creighton, Shirley A. Melcher, M.S.W. 1955 Wash., Stan L. Moore, M.D. 1975 Nebr., Elizabeth Patino, M.S. 1960 Colo., Edward E. Pease, M.D. 1968 Illif (Denver), William H. Reid, M.D. 1970 Minn., Charles H. Richardson, M.S.W. 1964 Nebr., John W. Rohrbaugh, Ph.D. 1973 Ill., Stephen L. Ruedrich, M.D. 1976 Ohio State, Susan A. Salladay, Ph.D. 1974 Boston, Mary C. Schroeder, M.S.W. 1966 Kansas, Merle E. Sjogren, M.D. 1947 Nebr., Lillian Stoller, M.D. 1976 Nebr., Donald W. Sydow,

Ph.D. 1953 Minn., James W. Wengert, M.D. 1960 Nebr., Clark D. Wieland, M.D. 1944 Nebr., Hermann Witte, Ph.D. 1972 Ala., William D. Wood, Ph.D. 1967 No. Car., J. Lewis Yager, Ph.D. 1944 Chicago; **INSTRUCTORS** Roberto E. Aguirre, M.D. 1973 Guatemala, Sandra S. Alcaparas, M.S.W. 1974 Denver, Karen Authier, M.S.W. 1969 Nebr., Daniel H. Baker, M.A. 1973 Nebr., John R. Beerling, M.S.W. 1972 Nebr., JoAnn Betts, M.S.W. 1976 Nebr. at Omaha, James M. Burger, Ph.D., 1980 Nebr., Benjamin F. Cacioppo, M.S.W. 1972 Nebr., Charles Chavez, M.D. 1971 Creighton, David M. Daughton, M.S. 1977 Nebr. at Omaha, Catherine M. DeSalvo, M.S. 1978 Nebr. at Omaha, J. Lee Dyer, M.D. 1954 Nebr., William E. Ford, Ph.D. 1974 Mass., Jewell Goodloe, B.S. 1946 Omaha, John A. Henderson, M.B.A. 1971 Xavier (Cincinnati), Jack D. Hornby, M.D. 1974 Nebr., Kenneth O. Hubble, M.D. 1943 Chicago, Hollis J. Limprecht, A.B. 1943 Nebr., William R. Meyer, M.S.S.W. 1966 Mo., Arleen Michael, Ed.D. 1979 Nebr., Clayton L. Pettipiece, M.D. 1958 Nebr., Shirley L. Pflug, M.D. 1967 Nebr., Mary M. Quattrocchi, M.S.W. 1976 Nebr., Somasundaram Rajendran, M.D. 1964 Madras (India), Michael L. Riley, M.S. 1977 Nebr. at Omaha, Steven Sherrets, Ph.D. 1980 Nebr., Janet A. Smith, M.O.T. 1977 Texas Women's Univ., Mary Ann Strider, M.S. 1971 Nebr. at Omaha, Robert Townsend, Ph.D. 1974 Nebr., James E. Wilson, Pharm. D. 1979 Nebr., Jack F. Wisman, M.D. 1949 Tulane; **ASSISTANT INSTRUCTOR** Wilberta Yager, B.A. 1947 Colo..

Courses are planned to give the student, commencing in his freshman year, correlated, progressive training in the anatomical, physiological, and psychological fundamentals of psychiatry.

Lectures and demonstrations in the freshman year emphasize the significance of behavioral sciences to the medical career. The sophomore program consists of lectures and case demonstrations in basic psychiatry, which include descriptive and dynamic psychopathology and techniques of examination. In the junior and senior years, stress is placed on supervised experience with psychiatric patients, on inpatient, day-patient, and outpatient basis. Formal lectures are kept to a minimum. Instruction in psychiatry is correlated with the teaching in other departments.

PSYCHIATRY—70

502 Introduction to Psychiatry and the Behavioral Sciences (2 s h cr, Second Semester; 8 h weekly), Haffke, Strider, Ruedrich

This course is designed to give the student, via some understanding of the contributions of both behavioral and biological science, an appreciation of the development of man as a physiological psychological entity reacting to intrapersonal and interpersonal changes and functioning in health and in illness within the context of family, society, and culture. It focuses on an understanding of the development of behavior in the context of both the normal and abnormal. Its objective is, while teaching the student some of the uses of basic psychiatric techniques in other branches of medicine, to help to obliterate the "mind-body" dichotomy thus giving the student the ability to deal with the patient as a "whole" person rather than a series of systems. It is organized under the headings: 1) human development, 2) biological and behavioral factors in human development and function; 3) man in his environment, 4) psychological medicine and its role in modern society.

602 Basic Psychiatry (2 s h cr; 3 h weekly), Davis

Descriptive aspects of clinical syndromes are presented. The course is preparatory to the clerkship in psychiatry and gives the student a basic understanding of mental illness from the standpoint of a general practitioner.

610 Alcoholism and Drug Readings, Ruedrich

Periods Offered: By arrangement

Student Limit: By arrangement

Semester Hours: 4 per twelve weeks

Prerequisite: Biochemistry 510

Lectures, demonstrations, seminars, and review of literature concerning alcoholism and drug addiction.

616 Neurochemistry, Carver

Periods Offered: By arrangement

Student Limit: By arrangement

Semester Hours: 4 per twelve weeks

Prerequisite: Biochemistry 510

A basic course in the chemistry of the central nervous system. The material will cover aspects of the subcellular units, metabolic compartments, and the regional distribution of chemical components. Current literature will be reviewed by the student and presented as part of the course.

630 The Dying Patient, Salladay

Periods Offered: Second Semester

Student Limit: 30

Semester Hours: 2 (1½ h weekly)

This course will encourage participants to "contact" death's meaning by examining past and present cultural attitudes, personal experiences, denial mechanisms and taboos surrounding death. Participants will be provided opportunities to meet and talk with individuals now living with life threatening illness, to discover support systems available to patients and families, and to analyze their own personal reactions to death and dying as health care professionals.

640 Practicum Training in Clinical Psychology, Strider

Periods Offered: All Semesters; 8 or 12 weeks, full or half time

Student Limit: None

Semester Hours: By arrangement

Prerequisite: Recommendation of major advisor and permission of instructor

Clinical experience working with patients under clinical supervision. Open to students other than medical students.

644 Ambulatory Psychiatry, Swanson

Periods Offered: All Semesters; 8 or 12 weeks, full or half time

Student Limit: 2 per 8 weeks

Semester Hours: 4 per 8 weeks by arrangement

Prerequisite: 70-705

Lectures, seminars, demonstrations in individual and group psychotherapy and psychopharmacology with adult outpatients.

646 Developmental Problems of Children, Menolascino

Periods Offered: All Semesters; 4, 8, or 12 weeks, full or half time

Student Limit: By arrangement (total of 4 on service at any one time)

Semester Hours: 4 per 4 weeks (or by arrangement)

Special Arrangements: Obtain permission from Staff

Prerequisite: 70-705

Lectures, demonstrations and seminars. Clinical experience working with children, in-patients and outpatients, and their families. Experience with community agencies working with children.

705 Required Psychiatry Clerkship, Gutnik and Staff

Periods Offered: Each 8 weeks

Student Limit: 30

Semester Hours: 8

A full-time eight-week required clinical clerkship is to be taken in the junior year. Students are assigned to instructors on a tutorial basis and under this detailed supervision are assigned patients on the adolescent service; adult inpatient service; adult outpatient service; children's service; liaison service, preventive and social psychiatry division; and the Veteran's Administration Hospital psychiatry service. Although assigned to a specific service, a core-curriculum of lectures, seminars, and demonstrations of common psychiatric disorders provides each student with experiences on all services of the Nebraska Psychiatric Institute.

721 Individualized Studies in Psychiatry, Gutnik and Staff

Periods Offered: All Semesters; 4, 8, or 12 weeks, full or half time

Student Limit: By arrangement

Semester Hours: By arrangement

Demonstrations, seminars, readings and clinical experience in such areas as alcohol and drug problems; community psychiatry, mental retardation; hospital psychiatry (given at NPI and/or VA); and liaison psychiatry.

726 Psychiatric Problems of Adolescents, Menolascino

Periods Offered: All Semesters; 4, 8, or 12 weeks, full or half time

Student Limit: By arrangement

Semester Hours: 4 per 4 weeks

Prerequisite: 70-705

Lectures, demonstrations, seminars on adolescent problems. Clinical experience working with adolescents and their families and with other community agencies concerned with adolescents.

732 Group Process Seminars, Gutnik

Periods Offered: To be arranged

Student Limit: 5 - 10

Semester Hours: 1

The student will learn to identify and follow group process in a non-psychotherapy setting. The student will learn how to alter group process. The course will consist of eight weekly 90-minute meetings. Didactic material will be presented which describes the theoretical aspects of group dynamics. In a more practical sense, the meetings will include analysis of the group dynamics that occur within the course.

- 734 Clinical Practice in Counseling of Sexual and Marital Problems, Staff**
 Periods Offered: All Semesters; 8 weeks at half time only
 Student Limit: By arrangement
 Semester Hours: 4 per 4 weeks
 Prerequisite: 70-705
 Clinical experience in treating individuals with sexual and/or marital problems.
- 750 Statistical Methods, Sherrets**
 Periods Offered: To be arranged
 Student Limit: By arrangement
 Semester Hours: 3
 Prerequisite: One semester of college algebra or its high school equivalent and permission of instructor
 Descriptive and inferential uses of statistics in the mental health field. Selected parametric and nonparametric techniques will be included.
- 751 Developmental Psychology**
 Periods Offered: To be arranged
 Student Limit: By arrangement
 Semester Hours: 3
 Prerequisite: 6 semester hour in Psychology or Educational Psychology; open only to qualified students in the fields related to Psychiatry and approval of the instructor
 A background of knowledge of normal development from birth to old age as a sound basis for understanding maladaptive behaviors. Consideration of cultural, emotional, social, and intellectual factors throughout childhood; adolescent behavior and development; various aspects of adjustment in young adulthood, maturity and old age.
- 752 Group Dynamics, Wood**
 Periods Offered: To be arranged
 Student Limit: By arrangement
 Semester Hours: 2
 Prerequisite: Permission of instructor
 Experiential and didactic methods are used to consider small groups, the relationship between them and the individual, and the relationship between small groups.
- 753 Psychiatric Concepts, Haffke**
 Periods Offered: To be arranged
 Student Limit: By arrangement
 Semester Hours: 2
 Prerequisite: Permission of instructor
 The purpose of this course is to explore human behavior, both ordered and disordered, via (1) selected readings in modern literature as they represent psychiatric concepts, (2) synoptic presentations of descriptive and dynamic aspects of the major psychiatric disorders, and (3) a contemporary view of psychiatric treatment and management.
- 754 Basic Psychodynamics, Strider**
 Periods Offered: To be arranged
 Student Limit: By arrangement
 Semester Hours: 2
 Prerequisite: Permission of instructor
 A course designed to consider theories of personality development, psychopathology, and abnormal behavior. Psychiatric syndromes are reviewed with emphasis upon psychodynamics as related to symptom formation, contemporary psychotherapeutic methods and prognosis. Recent research findings are discussed. Patient demonstrations are presented to illustrate psychopathology, psychodynamics, and psychiatric syndromes.
- 756 Community Psychiatry, Haffke**
 Periods Offered: To be arranged
 Student Limit: By arrangement
 Semester Hours: 2
 Prerequisite: Permission of instructor
 A course in Community Psychiatry with special emphasis on consultative techniques, mental health education, the function of human management systems, and practices within the community, and the primary, secondary and tertiary aspects of mental illness prevention. The course will present material relevant to a wide spectrum of community mental health professions. Selected representative community agencies are visited.

757 Psychiatric Literature

Periods Offered: To be arranged
Student Limit: By arrangement
Semester Hours: Credit arranged
Prerequisite: Permission of instructor

Reading assignments in special areas; library reading and conferences.

758 Clinical Child Psychiatry, Berry

Periods Offered: To be arranged
Student Limit: By arrangement
Semester Hours: 3
Prerequisite: Permission of instructor

The general purpose of this survey course is for the student to become familiar with psychotherapeutic techniques aimed at enhancing the adjustment and maturity of children. The history, philosophy, methods of, and the research in child psychotherapy are considered.

760 Off-Campus Elective, Eaton and Gutnik

Periods Offered: By arrangement
Student Limit: By arrangement
Semester Hours: 4
Prerequisite: 70-705

An introduction to the practice of Psychiatry or its subspecialties. For training not available locally, may be transcultural elective taken outside the USA.

772 Psychiatry Residency, Gutnik

This includes clinical work with psychiatric patients, combined with the study of basic psychiatric sciences, medical and social psychology, psychopathology, psychotherapy, and the physiological and pharmacological therapies, including the basic knowledge, the form, function and pertinent pathology of the nervous system. The training program in general psychiatry is of four years' duration and is supervised by the faculty to develop competency and the utilization of such basic knowledge in dealing with patients.

774 Child Psychiatry Residency, Menolascino

The prerequisite for child psychiatry is at least three years of general psychiatric residency. The child psychiatry residency program is a two-year program, during which the residents remain in the full-time practice of child psychiatry under faculty supervision. During this time competence in the application of the basic psychiatric sciences to inpatient and outpatient psychiatric care of children is required.

776 Internship in Clinical Psychology, Strider

The internship program provides a diversified training experience in which the psychology intern is provided the opportunity to work with a wide range of patients, age groups, and clinical problems. Emphasis is also placed on intensive appraisal and understanding of clinical situations. The intern develops basic competence in diagnostic interviewing, psychodiagnostic evaluation and psychodynamic formulation with both children and adults. Experiences with several psychotherapeutic approaches with both children and adults is arranged with emphasis on careful case formulation as the basis for selection or variation of technique. Attention is given to the development of skills in interprofessional relations and community psychology. Opportunities for consultation with referral sources, including schools, other agencies and clinics, are arranged to provide the intern with experience in consultative situations.

798 Research in Psychiatry, Ellingson and Staff

Periods Offered: All Semesters; 4, 8, or 12 weeks, full-time only
Student Limit: By arrangement
Semester Hours: 4

Laboratory of clinical research under direction in selected areas of psychiatry and/or behavioral sciences.

RADIOLOGY

PROFESSORS Thomas J. Imray (Chairman), M.D. 1965 Marquette, Roger K. Harned, M.D. 1961 Vir., Ernest O. Jones, Ph.D. 1964 No. Car. State, P. Pradeep Kumar, M.D. 1964 Andhra (India), Merton A. Quaife, M.D. 1957 Nebr.; **ASSOCIATE PROFESSORS** Joseph C. Anderson, M.D. 1968 Nebr., Charles A. Dobry, M.D. 1962 Nebr., Francis J. Hahn, M.D. 1961 Yonsei (Korea), Murray J. Mazer, M.D. 1969 Manitoba (Canada), Herbert B. Saichek, M.D. 1943 Marquette; **ASSISTANT PROFESSORS** Gayle H. Bickers, M.D. 1968 Duke, Wei-kom Chu, Ph.D. 1977 Okla., Gregory L. Hanson, M.D. 1972 Nebr., James J. Phalen, M.D. 1965 Creighton, Marilyn Sitorius, M.D. 1977 Nebr., Susan M. Williams, M.D. 1973 Nebr.; **SENIOR CONSULTANT** Howard B. Hunt, M.D. 1927 Harvard.

The curriculum in Radiology aims to relate the physical and biological principles of radiation effects to the basic sciences and to the diagnosis, prevention, and treatment of disease.

Lectures in the principles of radiology offered in the Clinical Medicine series relate to radiation physics, radiation biology, principles of radiographic technics, the interpretation of roentgenograms, nuclear medicine, and radiation therapy.

During the third year radiologic interpretation, nuclear medicine, and radiation therapy is continued by electives. Sectional teaching to groups of four to ten students is conducted through film reading sessions, group conferences, and tumor clinics.

RADIOLOGY—76

720 Diagnostic Radiology

Periods Offered: Each 4 weeks (may be extended an additional four weeks by permission)

Student Limit: 12 - University Hospital

Semester Hours: 4

Daily sessions in film interpretation, fluoroscopic examination, special radiographic procedures, and correlation of radiographic anatomy, radiographic physiology, and radiographic pathology in the evaluation of human diseases are to be carried out in the Department of Radiology. In addition, there is an introduction to radiation therapy and nuclear medicine.

specialized areas such as pediatric radiology, cardiovascular radiology, ultrasound, neuroradiology, and GU radiology.

722 Radiation Therapy

Periods Offered: Each 4 weeks (may be extended an additional four weeks by permission)

Student Limit: 2 per section

Semester Hours: 4

Cancer is relatively rare in the usual medical practice, although it ranks second as a cause of death. Since most patients with cancer at some time in the course of their disease will receive radiation therapy, this elective permits a concentrated exposure to the manifestations of malignant disease. The emphasis will be the evaluation of patients undergoing treatment with the various radiation therapy modalities. An attempt will be made via discussion of particular cases to correlate the roles of surgery, chemotherapy, and radiation therapy.

724 Nuclear Medicine, Quaife

Periods Offered: Each 4 weeks (may be extended an additional four weeks by permission)

Student Limit: 4 per section

Semester Hours: 4

This elective is directed towards acquainting the student with the field of Nuclear Medicine. The application of nuclear energy to the diagnosis, treatment, and/or investigation of human disease is surveyed with emphasis on clinical applications. The students receive didactic instruction in the principles and practice of pertinent nuclear physics and instrumentation, participate in case evaluation, procedure selection, radio-nuclide dose calculation and administration, conduction of the procedure, subsequent evaluation and analysis of data with interpretation and formulation of consultative report. Follow-up of patients with integration of the consultative report into the total patient care is stressed. Pertinent radiation biologic and radiation protection considerations are related to the conduct of the routine practice of nuclear medicine. Opportunity is available for the pursuit of individual interests within the overall framework of the elective.

760 Off-Campus Elective

Periods Offered: Each 4 weeks

Student Limit: By arrangement

Semester Hours: 4

Clerkships in University or teaching hospitals elsewhere. By individual approval only.

SURGERY

PROFESSORS Paul E. Hodgson (Chairman), M.D. 1945 Mich.; William H. Fleming, M.D. 1961 Columbia; William Malette, M.D. 1953 Wash. Univ. (St. Louis); **CLINICAL PROFESSOR** Richard W. Steenburg, M.D. 1948 Harvard; **ASSOCIATE PROFESSORS** Leon F. Davis, D.D.S. 1967 Nebr., M.D. 1972 Nebr.; Daniel M. Miller, M.D. 1942 Creighton, L. R. Schultz, M.D. 1955 Nebr., Chester F. Singer, Jr., M.S.D. 1960 Mo.; **CLINICAL ASSOCIATE PROFESSORS** John H. Brush,

M.D. 1943 Nebr., John D. Coe, M.D. 1944 Nebr., John B. Davis, M.D. 1951 Nebr., Randolph M. Ferlic, M.D. 1961 Creighton, George M. Johnson, M.D. 1942 Nebr., Delbert D. Neis, M.D. 1945 Kansas, Gerald R. Ott, D.D.S. 1958 Minn., Stanley E. Potter, M.D. 1941 Nebr., John A. Rasmussen, M.D. 1943 Nebr., Barney B. Rees, M.D. 1944 Nebr., John W. Smith, M.D. 1956 Nebr., Samuel A. Swenson, Jr., M.D. 1941 Nebr.; **ASSISTANT PROFESSORS** Betty L. Bryson, M.D. 1974 Kentucky, Norris D. Johnson, M.D. 1974 Nebr., Terrance L. Kullbom, D.D.S. 1966 Iowa, David S. Marshall, D.D.S. 1965 Wash., Gary L. Quast, D.D.S. 1964 Iowa; **CLINICAL ASSISTANT PROFESSORS** James Adwers, M.D. 1969 Nebr., Albert S. Black, M.D. 1940 Chicago, L. Dwight Cherry, M.D. 1945 Columbia, Robert W. Gillespie, M.D. 1950 Nebr., Robert D. Harry, M.D. 1968 Nebr., Thomas C. Howard, M.D. 1969 Yale, Joel T. Johnson, M.D. 1961 Nebr., F. William Karrer, M.D. 1956 Nebr., Kenneth F. Kimball, M.D. 1948 Nebr., Benton Kutler, D.D.S. 1945 Creighton, John F. Latenser, M.D. 1946 Nebr., Robert D. Lynch, M.D. 1963 Nebr., Burdette J. Moor, M.D. 1961 Nebr., Donald R. Owen, M.D. 1971 Nebr., James F. Panzer, M.D. 1965 Nebr., John W. Porter, M.D. 1954 Nebr., Hans Rath, M.D. 1952 Nebr., Carl W. Sasse, Jr., M.D. 1958 Nebr., Robert L. Smith, D.D.S. 1962 Nebr., Chester Q. Thompson, Jr., M.D. 1964 Nebr., Thomas H. Wallace, M.D. 1959 Nebr., Robert H. Westfall, M.D. 1955 Nebr., Eugene M. Zweiback, M.D. 1963 Columbia; **INSTRUCTORS** Richard M. Tempero, D.D.S. 1971 Creighton, M.D. 1974 Nebr., Jon F. Thompson, M.D. 1976 Colorado; **CLINICAL INSTRUCTORS** Dale E. Brett, M.D. 1958 Okl., Karl W. Bruce, D.D.S. 1940 Nebr., Robert W. Ehrlich, M.D. 1947 Nebr., Louis E. Hanisch, M.D. 1945 Nebr., Robert A. Hillyer, M.D. 1940 Nebr., William G. LeWorthy, M.D. 1945 Temple, Samuel F. Moessner, M.D. 1943 Nebr., John G. Wiedman, M.D. 1944 Nebr.; **SENIOR CONSULTANTS** Robert M. Cochran, M.D. 1940 Nebr., Robert O. Garlinghouse, M.D. 1943 Penn., Charles W. McLaughlin, Jr., M.D. 1929 Wash., Wilbur A. Muehlig, M.D. 1935 Mich., W. Wallace Webster, D.D.S. 1934 Nebr.; **EMERITUS** Herbert H. Davis, M.D. 1920 John Hopkins, Merle M. Musselman, M.D. 1939 Nebr..

The Department of Surgery includes sections of general surgery, oral surgery, pediatric surgery, plastic surgery, and thoracic-cardiac surgery.

The surgical faculty participates with other departments in interdepartmental exercises during the first two years. The purpose is to correlate the knowledge and precepts of pre-clinical sciences with the problems displayed in patients with surgical diseases.

The Department of Surgery offers courses for students in clinical science semesters. A primary clerkship has been designed to present the principles of recognition, diagnosis, and care of surgical disease. Students are incorporated into the activities of the surgical team. After this clerkship, students may add to their breadth and depth of understanding of surgical disease by selecting electives in a variety of special areas in the Department of Surgery or in other surgical areas.

SURGERY—80

705 Primary Clerkship

Periods Offered: Every 8 weeks

Student Limit: 25

Semester Hours: 8

Students examine and evaluate patients for whom they help care during the course of an illness. They apply and evaluate diagnostic procedures, consider differential diagnosis and observe the consequences of therapeutic decisions. This study is enhanced by conferences, rounds, teaching packages, and demonstrations by the faculty. Essential elements of surgical knowledge and skills have been identified. The students participate in operations, learning principles, and techniques of operations and are actively involved in the care of patients who do not require hospitalization.

ELECTIVES

In the evolution of surgery a number of body regions or systems have become the focus for special attention leading to separation of the broad field into special areas. The core of surgery is still the understanding of cell, organ and system function, and response to injury. A student aspiring to a career in any field of medical practice can feel confident that electing any learning experience in which patients are accessible and in which exchange with faculty is possible will contribute to his/her effectiveness as a physician. The Department of Surgery includes several areas of special interest: general surgery, oral surgery, pediatric surgery, plastic surgery, and thoracic-cardiac surgery.

722 Elective Pediatric Surgery Clerkship

Periods Offered: Each 4 weeks

Student Limit: 1

Semester Hours: 4

Childrens Memorial Hospital.

724 Elective Thoracic-Cardiac Surgery Clerkship

Periods Offered: Each 4 weeks

Student Limit: 4

Semester Hours: 4

728 Elective General Surgery Clerkship

Periods Offered: Each 4 weeks

Student Limit: 5

Semester Hours: 4

Designed to build on the foundation achieved in the primary clerkship. The student is an active participant in the professional team caring for patients. Students can expect to acquire confidence in identifying problems, organizing a plan of approach, and conducting patients through the pre-operative and post-operative periods in conjunction with the faculty at affiliated hospitals.

SPECIAL OFF-CAMPUS ELECTIVE—

Special interests of well-developed career goals may lead a student to favor a special course or experience within or away from the Medical Center. In consultation with, and under the auspices of a member of the faculty, special arrangements can be made. Permission for this period will be contingent upon designing a supervised educational opportunity.

760 Off-Campus Surgery Elective

Periods Offered: Each 4 weeks

Student Limit: By arrangement

Semester Hours: 4

766 Preceptorial Surgery Elective

Periods Offered: Each 4 weeks

Student Limit: By arrangement

Semester Hours: 4

Many members of the active faculty have indicated their willingness to share a preceptorial clerkship with a student. The list of faculty is maintained in the Department of Surgery. This involvement with surgeons of our faculty in an active practice in Council Bluffs, Beatrice, Gordon, Lexington, Lincoln, and Kearney can be arranged with the member of the faculty selected and certified by the Department of Surgery. Bear in mind that each member of the faculty will set his own individual student limit.

RESEARCH ELECTIVES—

Length of approved time to be determined. In general, this type of experience favored for a student who has identified a research problem for which capacity and facilities exist to permit a fruitful period of study and effort.

772 Surgery Residency

This is a five-year clinical program after graduation from medical school during which knowledge, skills, and judgment are acquired in the management of patients with surgical diseases. This is a progressive educational experience with gradually increasing responsibility. Broad interest includes the prevention and cure of disease and the care and rehabilitation of patients. Broad clinical experience includes anesthesia, general surgery, neurosurgery, pediatric surgery, plastic surgery, thoracic-cardiac surgery, as well as electives to satisfy Board requirements in General Surgery.

776 Oral Surgery Residency

The advanced educational program in Oral Surgery comprises five years. This is a joint program offered by the University of Nebraska Colleges of Medicine and Dentistry. The student will enter as a first-year oral surgery resident during which time he will initiate his oral surgery training, audit certain medical school courses, and take Part I of the National Board Examination in September. Towards the end of the first year, he will apply for admission to the College of Medicine as a special student with advanced standing. It should be noted that the Medical College Admissions Test is a requirement of all applicants. If accepted, he will complete the medical school curriculum (a minimum of two years or four semesters). Upon satisfactory completion of the above, the resident will be eligible for examination by the American Board of Oral Surgery and granted an oral surgery certificate, a medical degree and a certificate of first-year general surgical training.

Clinical experience is gained in outpatient and inpatient management of oral diseases, injuries and/or other abnormalities. Increasing responsibilities are assumed as the educational experience dictates. Additional experience is provided in oral and general pathology, general surgery, general anesthesia, maxillo-facial radiology and research.

790 Research in Surgery

By arrangement with faculty.

SURGERY, GENERAL EXERCISES—**Surgery Grand Rounds (every Friday 4:00-5:30 P.M.)**

Presentation and analysis of clinical problems. Faculty, house officers, and students.

Surgery Seminar (Thursday, 7:00 A.M.)

Presentation and discussion of subjects and articles related to surgery. Faculty, house officers, and students.

UROLOGY

PROFESSORS Francis F. Bartone (Chairman), M.D. 1957 Jefferson, Henry Kammandel, M.D. 1942 Tufts, Leroy W. Lee (Emeritus), M.D. 1939 Nebr., Edward M. Malashock, M.D. 1946 Nebr.; **ASSOCIATE PROFESSOR** Hal K. Mardis, M.D. 1958 Nebr.; **ASSISTANT PROFESSORS** Charles F. Damico, M.D. 1968 Creighton, Carl T. Frank, M.D. 1965 Nebr., Thomas W. Hep- perlen, M.D. 1968 Nebr., Earl K. Larson, Jr., M.D. 1964 Nebr., Stewart E. Sloan, M.D. 1973 Nebr.; **INSTRUCTORS** Raymond W. Conant, M.D. 1974 Creighton, Robert M. Kroeger, M.D. 1975 Nebr..

The fundamental principles of this specialty, including the diagnosis and treatment of urinary infections, urologic management of genito-urinary trauma and congenital anomalies, malignancies and intersex problems, are taught so that the general physician will be able to recognize these problems and treat those that are within his scope.

This is accomplished by a continual year-long series of seminars, bedside rounds, out-patient and operating room demonstrations, and combined conferences in genitourinary radiology, pathology and pediatric urology.

Aside from the undergraduate teaching, the members of this department provide instruction to residents and nurses. They also provide urological care to patients in the University Hospital, Veterans Administration, Bishop Clarkson, Methodist, and Immanuel Hospitals. They conduct investigative research in various subjects of urological interest.

UROLOGY—84

720 Hospital Clerkship

Periods Offered: Each 4 weeks

Student Limit: 5

Semester Hours: 4

Students may elect a one-month period of urology. They are assigned to the University Hospital or one of the affiliated hospitals. Special emphasis is devoted to principles of diagnosis and treatment especially pertinent to urology. Students participate in operations including transurethral surgery, and attempts are made to correlate operative findings with radiologic and pathologic findings. Students should make requests for hospital assignments through Mrs. Pat Zirkelbach at ext. 4292.

760 Off-Campus Elective

Periods Offered: Each 4 weeks

Student Limit: By arrangement

Semester Hours: 4

By special permission with Professor Bartone, arrangements can be made for off-campus electives.

Residency Program

The graduate training program in genito-urinary surgery is designed to meet the current requirements of the American Board of Urology. The aim is to expose the resident to all phases of urology. This is to include urologic diagnosis including endoscopy and retrograde pyelography, pre- and post-operative management and to be assured that he has performed a sufficient number and variety of surgical procedures, including endoscopic operations, to become a competent surgeon.

772 Urology Core Residency

A full-time two-year program of clinical assignments utilizing the patient material and the faculty working at the Methodist, Omaha V.A. Medical Center, and the University of Nebraska Medical Center Hospital. Background in the physiology, radiology, and pathology of the kidney and urinary tract are taught in a series of seminars and conferences in conjunction with the facilities of these respective hospitals. Pediatric seminars emphasizing this aspect of urology are taught in conjunction with the Department of Pediatrics.

774 Urology Chief Residency

A year-long full-time clinical program with assignments at the Veterans Administration Hospital, Omaha, and University of Nebraska Medical Center. The Chief resident is given clinical responsibility for both diagnostic and operative urology under faculty supervision.

799 Research in Urology

Prerequisite: Special Permission

The student may elect to spend a period with Professor Bartone in laboratory or clinical research.

This bulletin provides information about the educational programs offered through the University of Nebraska Medical Center's College of Medicine. The UNMC faculty, the administration and the University of Nebraska Board of Regents have authorized statements presented in this bulletin as indicating current requirements; practices and procedures for application for admission to the College and the Medical Center; admission requirements; course offerings; requirements for graduation, tuition and fees; and costs for education.

All statements within this bulletin are announcements of present policies only and are subject to change at any time without prior notice. They are not to be regarded as offers to contract.

In accordance with University policy, UNMC prohibits the denial of admission or of Medical Center privileges to students or applicants on the basis of race, color, sex, national origin, age handicap or religious or political beliefs. These privileges include but are not limited to admission, class assignments, scholarships, fellowships, assistantships, and financial aid, as well as housing and recreational facilities. Furthermore, student organizations must base their selection of students for membership on criteria which will not include race, color, religion, sex, national origin, age or handicap.

Admittance to UNMC programs will not be denied to otherwise qualified handicapped individuals solely by reason of their handicap. Qualified handicapped persons are those who meet the academic and technical standards required for participation in the specific educational program. Technical standards for the College of Medicine are provided in the section in admission.

In summary, UNMC policies are in accord with:

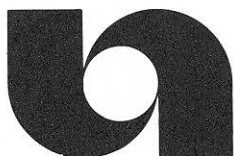
- Title VI of the Civil Rights Act of 1964

- Title IX of the Educational Amendments of 1972

- Sections 503 and 504 of the Rehabilitation Act of 1973

- Sections 799A and 854 of the Public Health Services Act

UNMC has an Affirmative Action Officer who works closely with the Office of Student Services to insure that these policies are supported on campus.



**For additional information, please write
DEAN, COLLEGE OF MEDICINE
University of Nebraska
Medical Center**

42nd and Dewey Avenue, Omaha, NE 68105